

City of Selma General Plan

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Circulation Element



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Circulation Element
of the
Selma General Plan

Adopted by the City of Selma

City Council
Resolution No. 97-48R

August 4, 1997

Planning Commission
Resolution No. 97-930

May 21, 1997

Ordination Element
of the
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Ordination of the City of Paris

August 4, 1907

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I. INTRODUCTION

The purpose of the Selma Circulation Element is to describe in a single document the policies, plans and goals that are relevant to the community's current and future circulation requirements. The intent of the document is to create a plan that will meet the transportation demands of the future population by improving the City's circulation system. The Circulation Element is also designed to support the goals of the community as they relate to the planned land uses. This Element will set forth the strategies and policies that will maintain the level of service of the City's streets and highways, transit, aviation, bicycle/pedestrian facilities, truck routes and transportation system management strategies.

The objective of the Selma Circulation Element is to develop an overall plan or "blueprint" for the future transportation needs and to maintain and improve the overall circulation system in and around Selma. The Element is designed to be compatible with the various elements of the General Plan and respond to the land use, open space, and conservation goals of the City.

The legal authority for the Selma Circulation Element is outlined in California Government Code Section 65302(b), which states a general plan shall include "a circulation element consisting of the extent and general location of existing and proposed major thoroughfares, transportation routes, terminals, and other local public utilities and facilities, all correlated with the land use element of the plan."

The circulation element has been a mandatory element of the local General Plan since 1955. The Element is basically a plan to create an infrastructure so that the circulation of people, goods, communication, etc. will develop efficiently. In recent years, circulation elements have seen added emphasis placed on the direct correlation with the community's land use element, the fundability of the proposed projects outlined in the document, other modes of transportation and the adequacy of the adopted policies to carry out the intent of the element.

The Selma Circulation Element has been prepared to be consistent and supportive of the land use, housing, open space, conservation, safety and noise elements. This consistency is based on scale, location and timing of development over the next twenty years.

The Selma Circulation Element will be presented in five chapters:

- Chapter 1 - Introduction
- Chapter 2 - Existing Circulation Systems
- Chapter 3 - Circulation Issues
- Chapter 4 - Policy Section
- Chapter 5 - Future Circulation System

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I. INTRODUCTION (continued)

Chapter 1 includes the Element's purpose, statutory authority and a discussion of related elements and plans. Also included in this chapter is a description of the relationship of the City's Circulation Element to the Land Use Element.

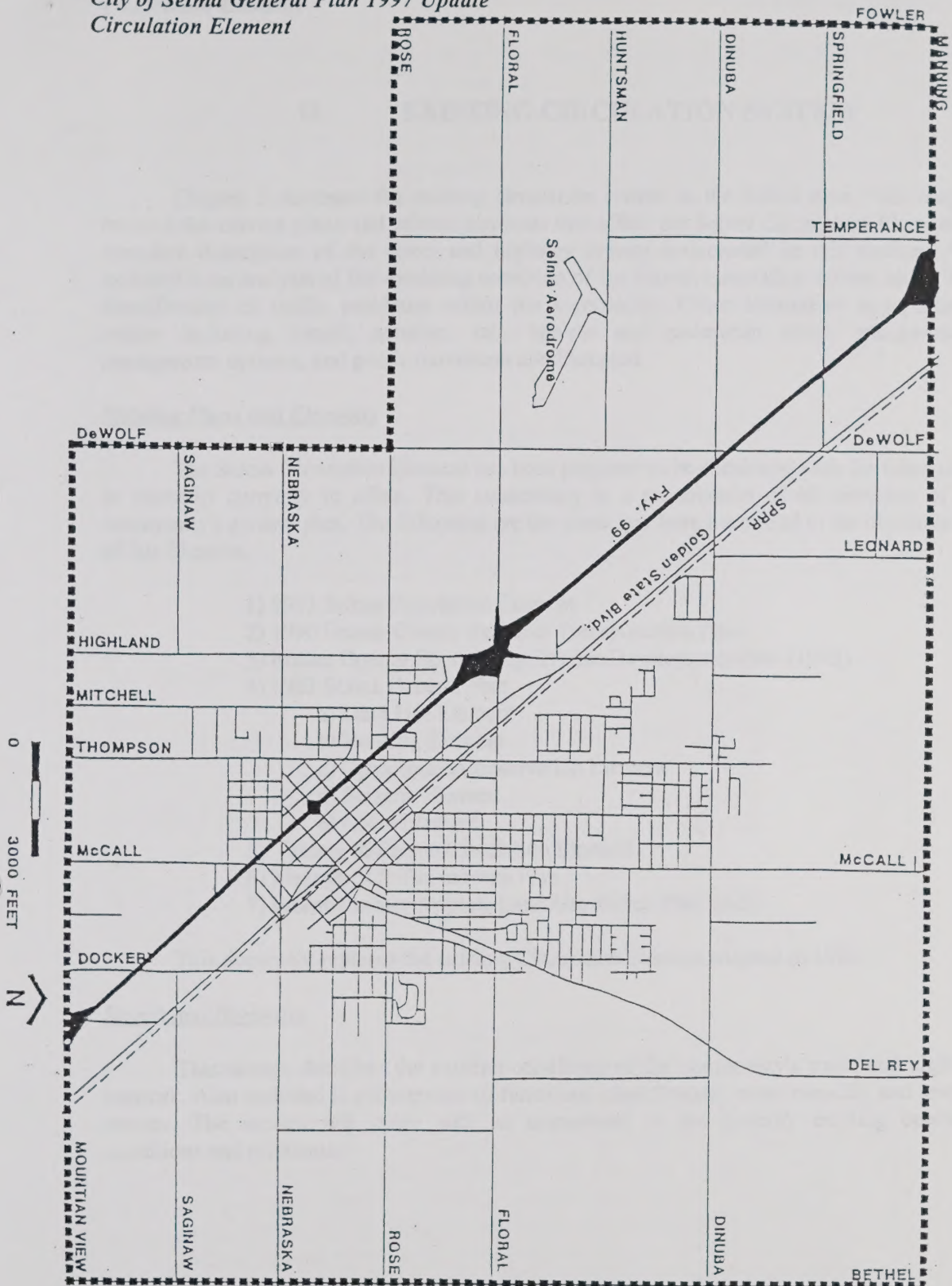
Chapter 2 discusses the existing circulation system, including streets and highways, transit, aviation, rail, bicycle/pedestrian facilities, truck routes, transportation system management, and goods movement.

Chapter 3 reviews the current issues surrounding the circulation system, including statewide, regional and local issues. Long-range issues affecting the development of the Element are also discussed in this chapter.

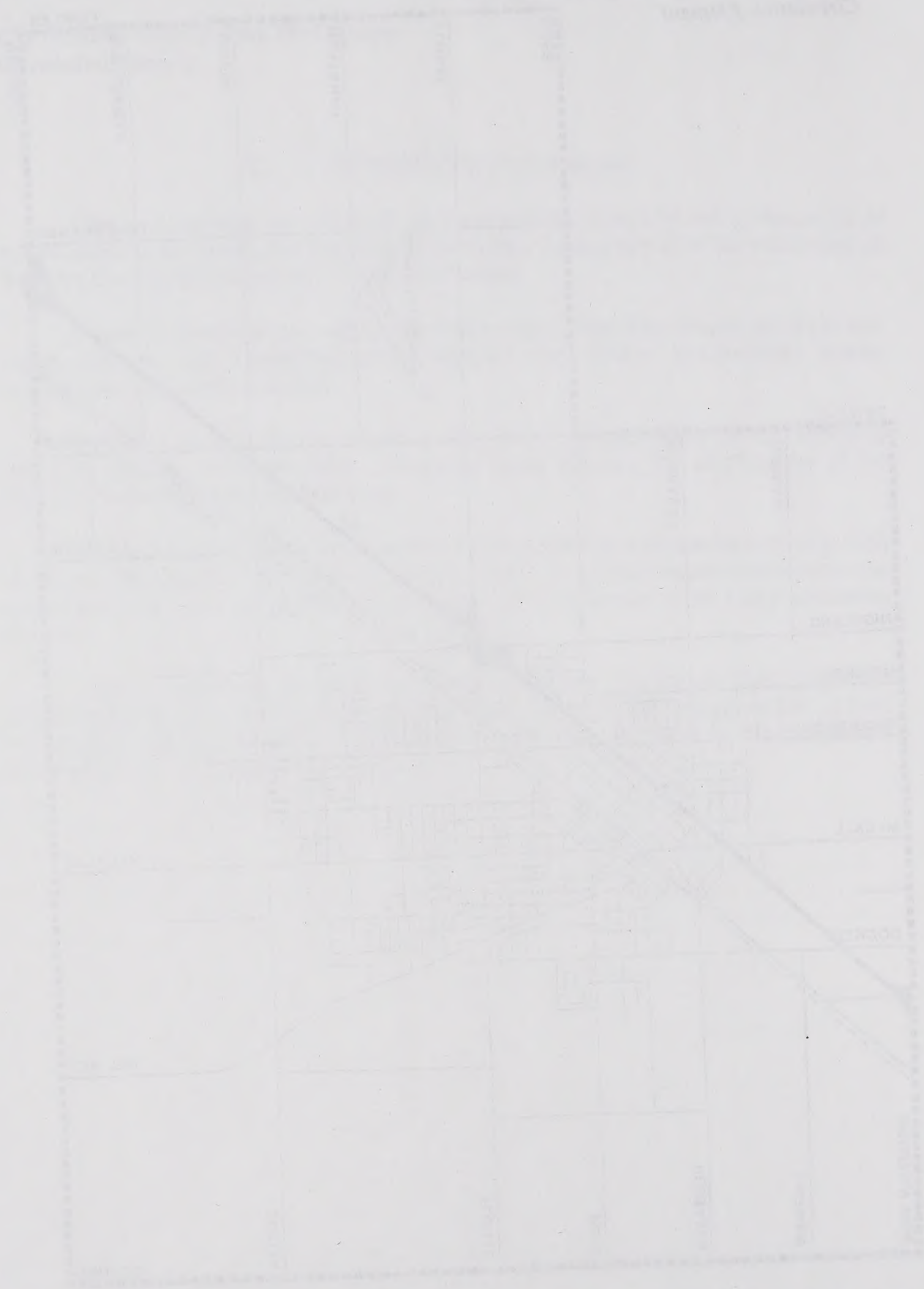
Chapter 4 outlines the policies currently affecting the City's circulation system as well as policies affecting the City's future circulation system. The policy section also presents the overall goal, objectives and policies for the continued development of the City's circulation system.

Chapter 5 describes the future circulation system for City streets, State highways, transit, aviation, rail, bicycle/pedestrian facilities, truck routes, transportation system management, goods movement and downtown parking. Also included in this chapter are proposed projects to implement the Element.

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STUDY AREA



STUDY AREA

II. EXISTING CIRCULATION SYSTEM

Chapter 2 discusses the existing circulation system in the Selma area. This chapter reviews the current plans and related elements that affect the Selma Circulation Element. A complete description of the street and highway system is included in this section. Also included is an analysis of the operating condition of the current circulation system along with identification of traffic problems within the community. Other alternative transportation modes including transit, aviation, rail, bicycle and pedestrian truck, transportation management systems, and goods movement are discussed.

Existing Plans and Elements

The Selma Circulation Element has been prepared to be consistent with the other plans or elements currently in effect. This consistency is a requirement of all elements of the community's general plan. The following are the plans that have been used in the development of this Element.

- 1) 1983 Selma Circulation Element
- 2) 1990 Fresno County Regional Transportation Plan
- 3) Fresno County Short-Range Transit Development Plan (1993)
- 4) 1983 Selma General Plan
 - a) Land Use Element
 - b) Housing Element
 - c) Open Space/Conservation Element
 - d) Seismic Element
 - e) Noise Element
- 5) County of Fresno Circulation Element
- 6) Measure "C" Expenditure Plan
- 7) Fresno County Airports Land Use Policy Plan Study

This document replaces the existing Circulation Element adopted in 1983.

Streets and Highways

This section describes the existing conditions of the community's street and highway network. Also included is a discussion of functional classification, street capacity and level of service. The section will close with an assessment of the system's existing operating conditions and problems.

Functional Classification

A community's street system is composed of a wide range of facilities. Street and highway facilities serve two basic functions, mobility and land access. Mobility means the provision for the movement of motorists between their points of interest or from one place to another. Land accesses means providing for the parking, storage or driveway access at the origin or destination of a person's trip.

Each facility type in a circulation element is designed to emphasize to varying degrees the mobility or land access function. Some facilities emphasize land access over mobility, while other streets emphasize mobility over land access. The following hierarchy delineates the typical function of the facilities used in this circulation element.

Functional Classification	
Facility Type	Emphasis
Freeway	Mobility with no direct land accesses and access limited to interchanges.
Expressway	Mobility with more frequent access to arterials but no direct land accesses.
Major Arterial	Mobility with connections to freeways, arterials and other collector streets, and limited access to traffic generators.
Arterial	Mobility with connections to other arterials, collectors, some local streets and major traffic generators.
Collector	Connects local streets with arterials, also provides access to adjacent land uses; balances mobility and access.
Local	Access to adjacent land uses only; no mobility function.

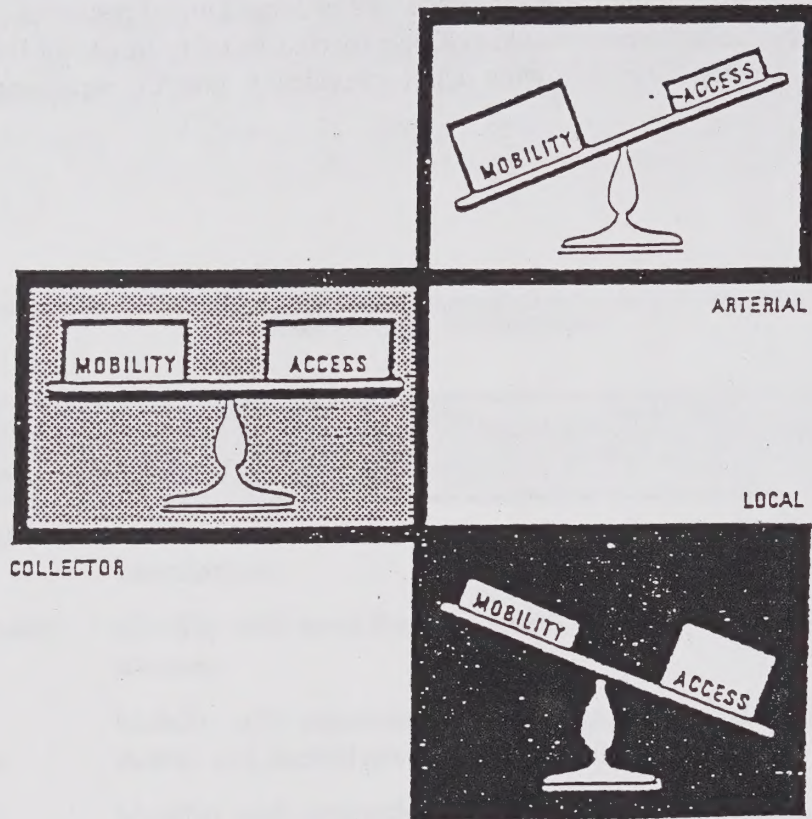
The above functional classification table shows that freeways are designed to provide for higher volumes of traffic at higher speeds over longer distances. Greater volumes and speeds require limited access and this is generally regulated by interchanges spaced at a minimum of one mile in urban areas and two miles apart in rural areas. Expressways also provide for higher traffic volumes, at higher speeds and longer travel distances. Access is provided via at-grade intersections generally spaced no closer than one-half mile apart. Major Arterials are intended to provide a high level of capacity in selected high volume corridors. Major Arterials provide access to major travel generators and are typically designed with six lanes for through traffic, a parking/transit/right turn lane, and a median with dual left turn lanes at intersections. Access to adjacent land uses is limited. Arterials provide for moderate volumes at

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moderate speeds and distances with access to other arterials and collectors at half-mile intervals, and access to local streets and collectors at quarter mile intervals. Collectors are facilities that provide a balance between the requirements of mobility and land access by connecting the local streets to the arterials and providing land access to adjacent land. Collectors are not designed to carry large volumes of traffic but rather to feed traffic to the arterials. Local streets should provide direct access to adjacent land and connect trips to the collector streets and in some limited instances connect directly to arterials. Local streets should not be expected to carry traffic in lieu of arterial or collector streets. The following chart provides a graphic representation of these functions.



Highway Functional Classification Chart



The proper designation of the community's street network can assist in the development of an efficient system for both mobility and access. The proper balance not only ensures that a street is sized to function properly, but it allows a community to properly allocate its resources to the streets needing additional capacity or improvements. A properly designed system will also prevent the use of local streets for through trips or the overburdening of freeways, expressways, and arterials with traffic.

Problems begin to occur in a system when a street that is designated to provide mobility is asked to provide land access. Land access typically requires driveways and on-street parking to adequately address the land access function. When many access points or on-street parking is provided, traffic conflicts occur and the facility loses its ability to provide for mobility. Likewise, when a street designed for access is asked to provide for mobility, conflicts occur. This generally happens on arterial and collector streets that were not developed with adequate access control or on local streets that are asked to carry through traffic.

EXISTING STREET SYSTEMS

The following describes the existing circulation system for the community.

State Highways and Freeways

There are two State highways in Selma. State Highway 99 (SH 99) bisects the community, and is typical of freeway development in rural parts of California. The facility provides for regional movement and inter-regional access through the Central Valley from Bakersfield to Sacramento. The highway is also used extensively for travel between southern and northern California.

Overcrossings of the SH 99 occur at McCall Avenue and Rose Avenue. The SH 99 interchanges in the Selma area are generally at one mile intervals and are located at:

Freeway Interchanges

Mountain View Avenue
Second Street
Floral Avenue/Highland (SH 43)
Manning Avenue

The other State highway in the Selma area is State Highway 43 (SH 43), which runs north and south and is located on the western edge of the community. SH 43 (called Highland Avenue in Selma) connects Selma with Hanford to the south and SH 99 to the north.

Expressways

There are three expressways designated in the study area. Golden State Boulevard runs north and south through the study area. This facility runs from Mountain View Avenue up to Nebraska Avenue where it becomes Whitson Street. At Highland Avenue, Whitson Street turns back into Golden State Boulevard and extends up through Manning Avenue. The County of Fresno designates Manning Avenue as an expressway. This expressway runs east to west and borders Selma's northern project study area boundary. East of SH the County of Fresno also designates Mountain View 99, as an expressway. This expressway runs from SH 99 east to the study area boundary.

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Major Arterials

Highland Avenue, also known as SH 43, is the only major arterial in the City of Selma. Highland Avenue is designated as a Major Arterial from Mountain View Avenue to Floral Avenue. From Stillman Street to Floral Avenue, Highland Avenue becomes a 4-lane arterial with a median and left turn pockets. South of Stillman Street, Highland Avenue is a 2-lane facility. Caltrans, as part of the Measure "C" program is planning to widen Highland Avenue from Nebraska Avenue to Stillman Street. The project is to be delivered in 1997 and will construct a 4-lane divided facility with traffic signals at the major intersections.

Arterials

All or portions of the following streets are currently designated as arterial streets in the Selma Urban Area. Generally, arterial streets are developed with right-of-way widths of at least 84 feet with two lanes in each direction and left turn lanes at signalized intersections. Some of these arterials are in rural areas and have not been developed to the City standard.

Arterial Streets

<u>North-South</u>	<u>East-West</u>
Highland Avenue	Mountain View Avenue
McCall Avenue	Nebraska Avenue
Whitson Street	Rose Avenue
Second Street	Floral Avenue
	Dinuba Avenue

Collectors

All or portions of the following streets are currently designated as collector streets in the Selma area. Collectors are currently constructed on 60 or 84 foot right-of-ways with one lane in each direction and parking on both sides. Discussions regarding amending the Circulation Element to eliminate the proposed diagonal collector from Dinuba Avenue up to Thompson Avenue are underway.

Collector Streets

<u>North-South</u>	<u>East-West</u>
Thompson Avenue	Nebraska Avenue
Dockery Avenue	Huntsman Avenue
Orange Street	Nelson Avenue
Del Rey Street	Rose Avenue

Local Streets

The remainder of the streets in the community are classified as local.

Gateways and Scenic Corridors

Golden State Boulevard, which runs north and south through Selma and parallel to SH 99, serves as a scenic corridor through the community. This expressway may also serve as a gateway to the community as future development proceeds along this route.

Current land development patterns indicate that growth in the Selma area is occurring to the north and east of SH 99 and Golden State Boulevard. Due to this growth pattern, Golden State Boulevard will become a major thoroughfare into and out of the Central Business District. Therefore, improvements to Golden State Boulevard may be beneficial and necessary to accommodate increased traffic volumes as well as improve the aesthetic quality of the area.

Other heavily traveled north-south gateways through the community include SH 99 and Highland Avenue (SH 43). Manning Avenue, which borders the Selma Study Area on the north and runs east-west, may also serve as a gateway through the community as development progresses in this direction.

ROADS OF REGIONAL SIGNIFICANCE

As discussed earlier, SH 99 plays an important role in providing for regional travel through the Valley. This highway provides access to Fresno and Bakersfield, and intersects State Highway 41 (SH 41), State Highway 198 (SH 198), State Highway 43 (SH 43) and Interstate 5. The map on page 2-8 outlines the Regional Roadway System for the City of Selma study area.

SH 43 provide direct access between Selma and Hanford. The northern most portion of SH 43 connect with SH 99, while a southerly portion connects to SH 198.

Golden State Boulevard is a major thoroughfare for travel through the central portion of the City. Golden State Boulevard runs parallel to SH 99 and provides access to the central business district of Selma. Golden State Boulevard also connects Selma with Fresno and Kingsburg.

Manning Avenue is another major thoroughfare that connects Selma via McCall Avenue with the City of Fowler to the west and the Cities of Parlier and Reedley to the east. McCall Avenue also connects Selma with the City of Del Rey to the north.

Mountain View Avenue is also regionally significant because it connects the southern portion of Selma with the City of Dinuba to the east and the City of Caruthers to the west.

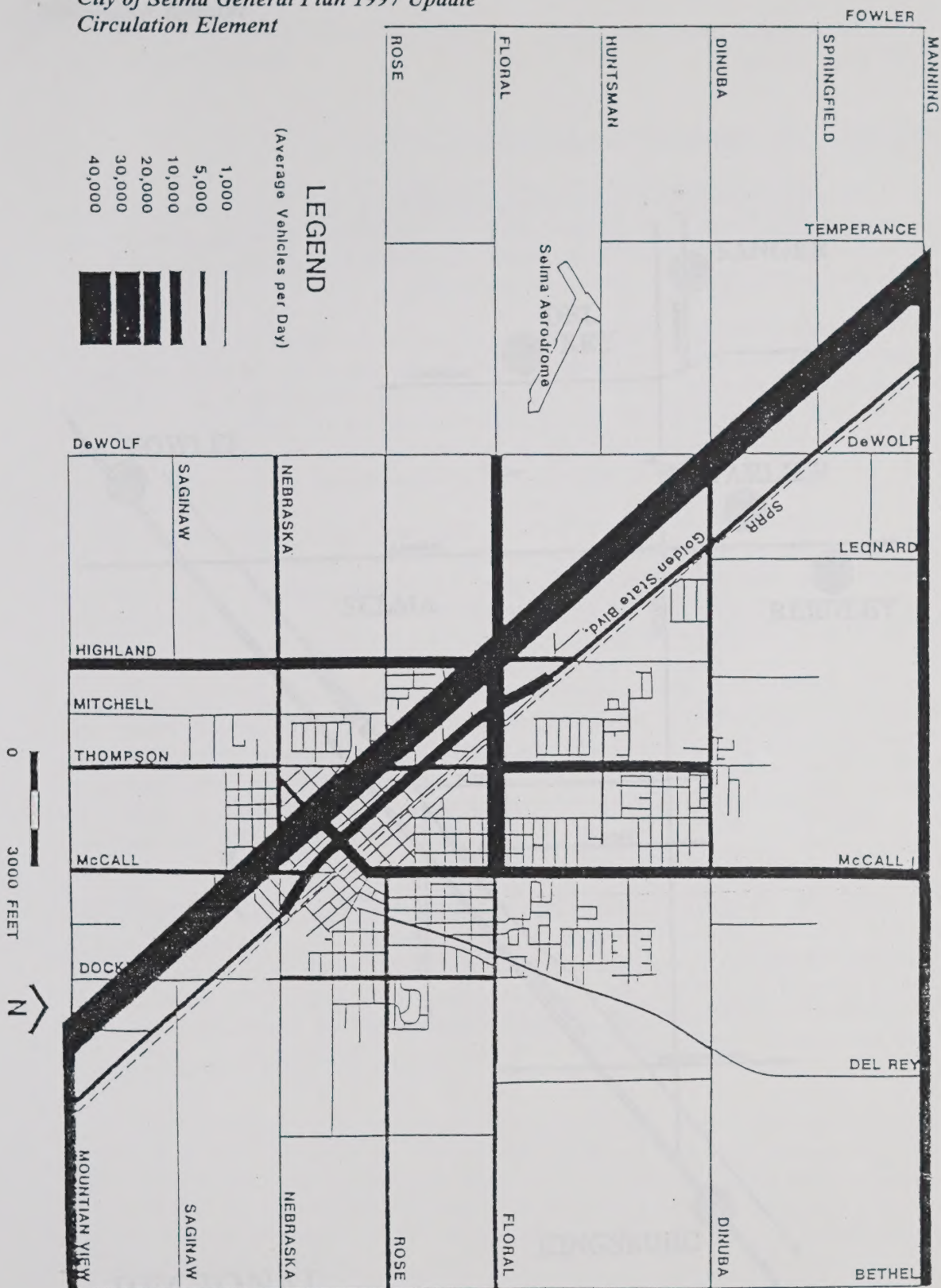
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Circulation Element

Mountain View Avenue also provides access to Golden State Boulevard, SH 99 and Highland Avenue (SH 43).

EXISTING 1983 GENERAL PLAN

The City of Selma adopted the current Circulation Element in 1983 as part of the General Plan Update. The map on the following page depicts the adopted circulation plan.

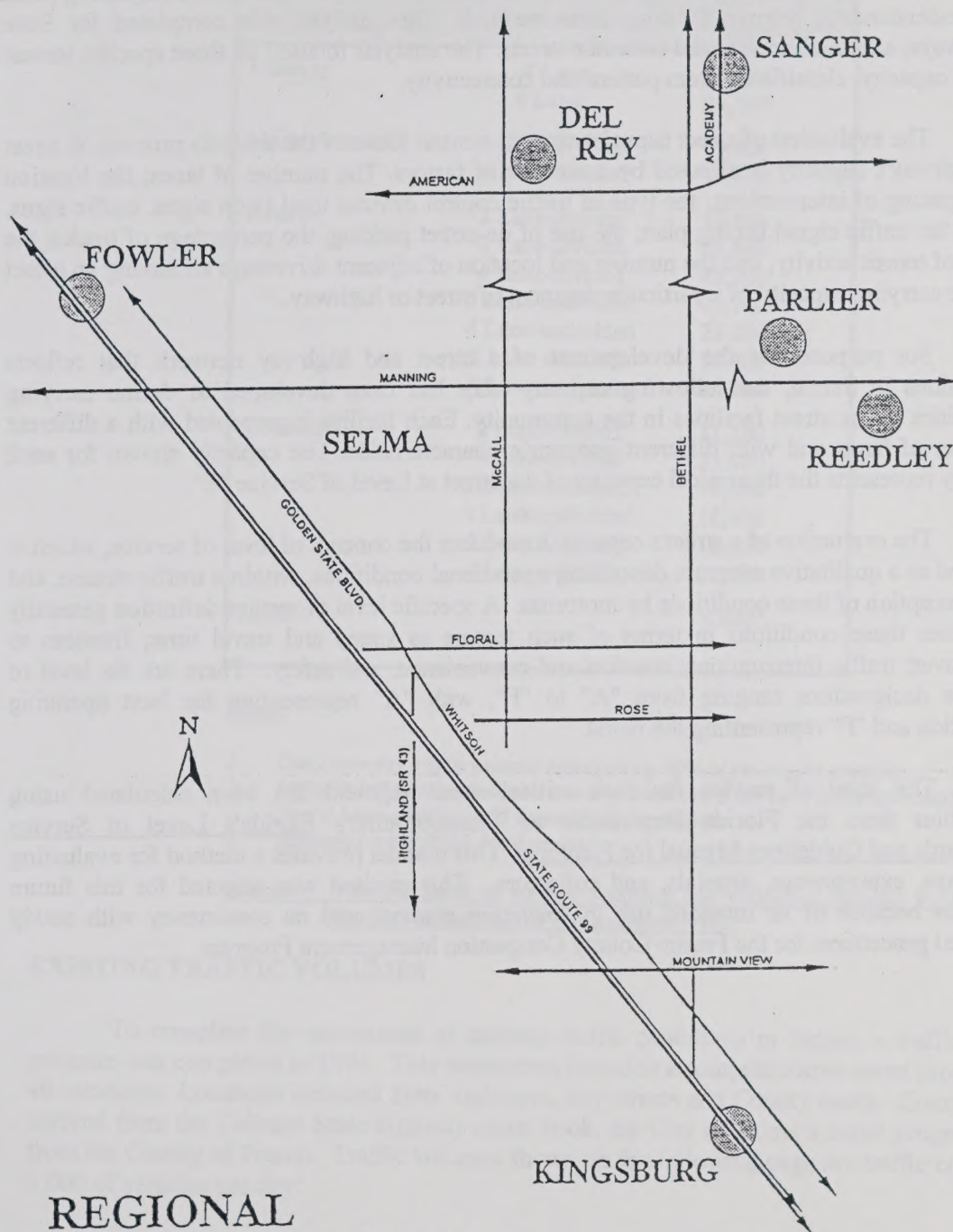
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EXISTING DAILY TRAFFIC VOLUMES



EXISTING DAILY TRAFFIC VOLUMES



REGIONAL ROADWAY SYSTEM

EXISTING TRAFFIC CONDITIONS

The existing traffic conditions were evaluated to develop a base line or beginning point for understanding Selma's existing street network. This analysis was completed for State highways, arterials and selected collector streets. The analysis focused on three specific issues: street capacity, classified system pattern and connectivity.

The evaluation of street capacity was the central focus of the analysis process. A street or highway's capacity is affected by a number of factors. The number of lanes; the location and spacing of intersections; the type of traffic control devices used (stop signs, traffic signs, etc.); the traffic signal timing plan; the use of on-street parking; the percentage of trucks; the level of transit activity; and the number and location of adjacent driveways all having an effect on the carrying capacity of a particular segment of street or highway.

For purposes of the development of a street and highway network that reflects conditions in Selma, the following capacity table has been developed to define carrying capacities of the street facilities in the community. Each facility is presented with a different number of lanes and with different geometric characteristics. The capacity shown for each facility represents the theoretical capacity of the street at Level of Service "E".

The evaluation of a street's capacity introduces the concept of level of service, which is defined as a qualitative measure describing operational conditions, within a traffic stream, and the perception of these conditions by motorists. A specific level of service definition generally describes these conditions in terms of such factors as speed and travel time; freedom to maneuver; traffic interruptions; comfort and convenience; and safety. There are six level of service designations ranging from "A" to "F", with "A" representing the best operating condition and "F" representing the worst.

The level of service for each critical street segment has been calculated using capacities from the Florida Department of Transportation's Florida's Level of Service Standards and Guidelines Manual for Planning. This manual provides a method for evaluating freeways, expressways, arterials, and collectors. This method was selected for this future analysis because of its intended use in "planning studies" and its consistency with newly adopted procedures for the Fresno County Congestion Management Program.

Capacity of Functionally Classified System

Facility	Geometrics	LOS "E" Capacity ¹
Freeway	4 Lane	63,800
	6 Lane	95,700
Major Arterial	4 Lane-divided	29,400
	6 Lane-divided	44,500
Arterial	2 Lane-divided	13,800
	4 Lane-divided	28,800
	6 Lane-divided	43,700
	2 Lane-undivided	13,100
	4 Lane-undivided	23,000
	2 Lane with lefts	13,400 ²
Collector	4 Lane with lefts	27,360
	2 Lane-divided	11,100
	4 Lane-divided	23,000
	2 Lane-undivided	10,600
	4 Lane-undivided	18,400
	2 Lane with lefts	10,800 ²
Local	4 Lane with lefts	21,800
		5,000 ³

Notes:

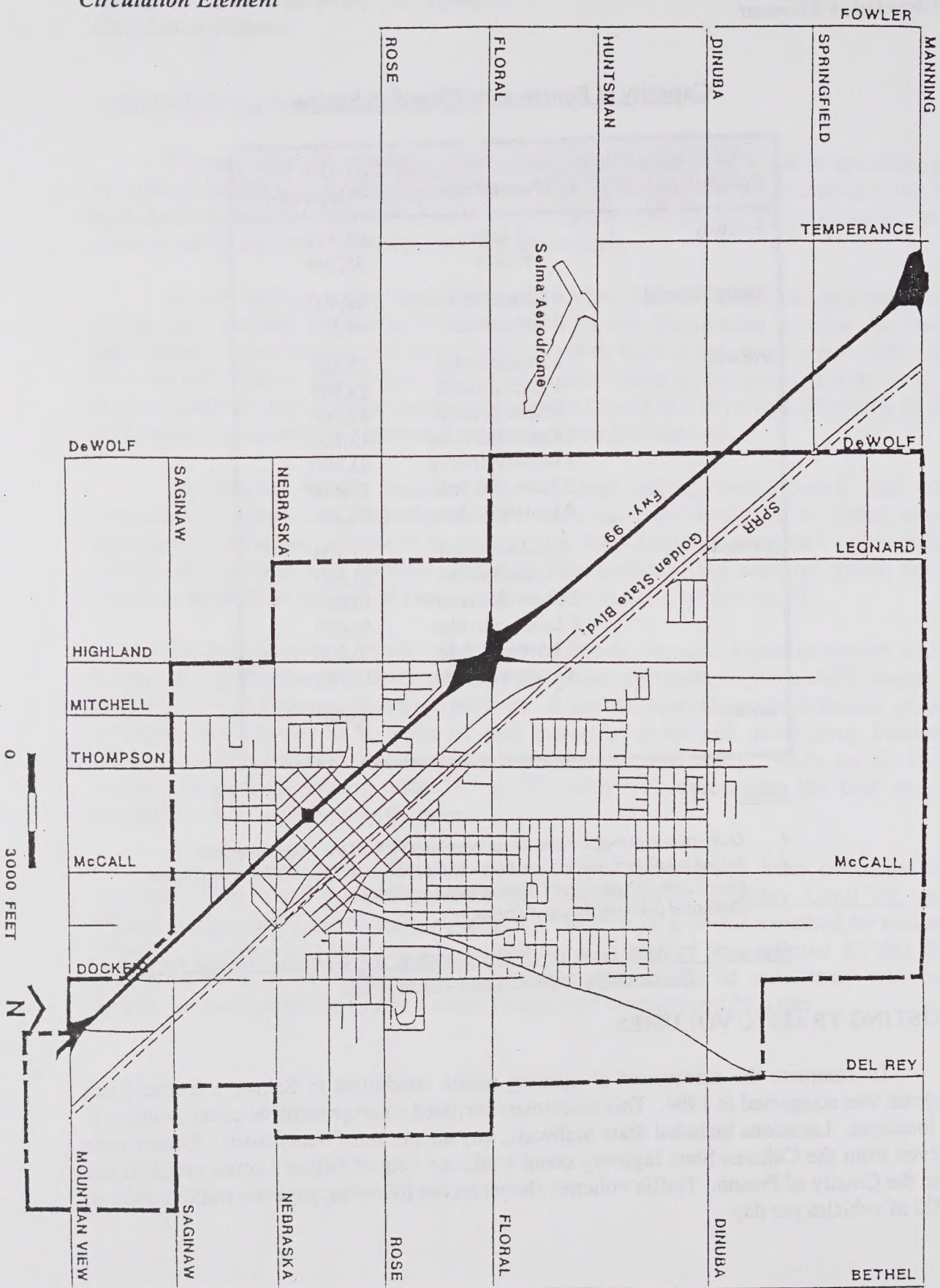
1. Daily two-way traffic volumes representing 99% of the street's capacity
2. Includes left turn pockets and two-way continuous left turn lanes estimated from 2 Lane-divided and 2 Lane-divided capacities
3. Estimated capacity for local streets

Source: Florida's Level of Service Standards and Guidelines Manual for Planning,
Florida's Department of Transportation, 1992.

EXISTING TRAFFIC VOLUMES

To complete the assessment of existing traffic conditions in Selma, a traffic count program was completed in 1994. This assessment included a comprehensive count program at 40 locations. Locations included State highways, city streets and County roads. Counts were derived from the Caltrans State highway count book, the City of Selma's count program and from the County of Fresno. Traffic volumes shown on the following page are traffic counts in 1,000 of vehicles per day:

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SELMA TRANSIT SERVICE AREA

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EXISTING LEVEL OF SERVICE

The traffic volumes delineated on the preceding page were used to evaluate the operating conditions of the existing street and highway system. The analysis was based on the relation of the existing traffic volume of the street to the current capacity of the street.

The charts that follow are presented with the designation of the street followed by the specific segment to be analyzed. A brief description of the existing geometrics (number of lanes) and the facility type is provided. The current capacity of the specific segment is given and is based on the geometrics of the facility. The existing traffic volume developed from the various count programs is shown for each segment. The level of service is developed from that traffic information and the Florida Tables.

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Transportation Planning Group
 June 1994

City of Selma CIRCULATION ELEMENT Existing Conditions						
Street	Segment	Existing Facility	Geometrics Median	Facility Type	Existing Volume	Level of Service
Mountain View	Highland to McCall	2 lane	Undivided	Arterial	1,800	C
	McCall to SH 99	4 lane	Undivided	Arterial	2,400	C
	SH 99 to UAB	4 lane	Divided	Expressway	8,400	B
Nebraska	UAB to Highland	2 lane	Undivided	Collector	2,700	C
	Highland to Second	2 lane	Undivided	Arterial	4,500	C
	Golden State to UAB	2 lane	Undivided	Collector	1,900	C
Rose	UAB to Highland	2 lane	Undivided	Collector	600	C
	Highland to Thompson	2 lane	Undivided	Collector	2,300	C
	McCall to UAB	4 lane	Undivided	Arterial	6,100	C
Floral	UAB to Highland	4 lane	Undivided	Arterial	12,600	C
	Highland to McCall	4 lane	Undivided	Arterial	17,500	C
	McCall to UAB	2 lane	Undivided	Arterial	5,400	C
Huntsman	Thompson to Wright	2 lane	Undivided	Collector	1,400	C
Nelson	Highland to Thompson	2 lane	Divided	Collector	1,800	C
	McCall to End	2 lane	Divided	Collector	2,800	C
Dinuba	Golden State to Highland	2 lane	Undivided	Arterial	4,600	C
	Highland to McCall	2 lane	Undivided	Arterial	5,200	C
	McCall to Del Rey	2 lane	Undivided	Arterial	2,600	C

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City of Selma CIRCULATION ELEMENT Existing Conditions June 1994						
Street	Segment	Existing Facility	Geometrics Median	Facility Type	Existing Volume	Level of Service
Manning	DeWolf to Leonard	4 lane	Divided	Expressway	13,700	B
	Leonard to McCall	4 lane	Divided	Expressway	9,900	B
	McCall to UAB	4 lane	Divided	Expressway	9,000	B
Highland (SH 43)	Mountain View to Nebraska	2 lane	Undivided	Maj. Arterial	8,200	C
	Nebraska to SH 99	4 lane	Divided	Maj. Arterial	10,900	C
	SH 99 to Dinuba	2 lane	Undivided	Arterial	5,200	C
Thompson	Mountain View to Nebraska	2 lane	Undivided	Collector	3,300	C
	Nebraska to SH 99	2 lane	Undivided	Collector	1,000	C
	Rose to Floral	2 lane	Undivided	Collector	4,300	C
	Floral to Dinuba	4 lane	Undivided	Collector	8,400	C
McCall	Mountain View to Nebraska	2 lane	Undivided	Arterial	3,300	C
	Nebraska to Golden State	2 lane	Undivided	Arterial	3,500	C
	Second to Floral	2 lane	Undivided	Arterial	8,300	C
	Floral to Dinuba	4 lane	Undivided	Arterial	10,300	C
	Dinuba to Manning	2 lane	Undivided	Arterial	6,900	C
Dockery	Mountain View to SH 99	2 lane	Undivided	Collector		C
	SH 99 to Golden State	2 lane	Undivided	Collector	200	C
	Golden State to Nebraska	2 lane	Undivided	Collector		C
	Nebraska to Floral	2 lane	Undivided	Collector	2,600	C
Del Rey	Floral to Dinuba	2 lane	Undivided	Collector	300	C
Highway 99	Mountain View to Second	4 lane	Divided	Freeway	40,000	C
	Second to SH 43	4 lane	Divided	Freeway	41,500	C
	SH 43 to Manning	6 lane	Divided	Freeway	42,500	B
Golden State/Whitson	Mountain View to Nebraska	4 lane	Divided	Expressway	3,100	B
	Nebraska to Floral	4 lane	Divided	Arterial	8,300	C
	Floral to Dinuba	4 lane	Divided	Expressway	6,200	B
	Dinuba to Manning	4 lane	Divided	Expressway	6,000	B
Second	Nebraska to Highway 99	4 lane	Undivided	Arterial	6,900	C
	Highway 99 to McCall	4 lane	Undivided W/Lefts	Arterial	11,800	C
Orange	Rose to Floral	2 lane	Undivided	Collector	900	C
	Floral to Dinuba	2 lane	Undivided	Collector	1,800	C

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The result of the existing level of service analysis shows that all of the streets in the community are currently operating at high levels of service. The vast majority of the streets are operating at a level of service "C" with eight segments operating at a level of service "B."

EXISTING CLASSIFIED SYSTEM PATTERN

The pattern and spacing of a community's street system are as important as the proper designation of the functional classification of the streets. Arterial streets located approximately every mile with collector streets located between the arterials at approximately half-mile intervals are ideal for communities like Selma that have developed their circulation system based on the automobile.

This pattern accomplishes several goals. It balances the system by providing for mobility with arterials, thus not committing the community to an over expenditure of resources. It provides for movement within an area with collectors at half-mile intervals. It protects neighborhoods from through traffic by isolating local streets and promoting through movements on collectors and arterials which are designed to accommodate these trips. Finally, it complements the Land Use Element by providing locations along arterials and collectors for traffic generating activities. The following discusses the relationship of Selma's existing street pattern to the pattern described above.

The continuing development of two State highways in the Selma area provides good access to and from the community. As discussed earlier, SH 43, Golden State Boulevard and SH 99 provide the main regional access to Selma. The level of local trip volumes on each facility is currently low, however, as development takes place on the edges of the community, additional local trips can be expected to use these facilities for in-town mobility.

Selma is blessed with one of the better arterial street patterns in the Valley. Generally, the one-mile spacing between the existing arterials is proving to be ideal for the type and intensity of development in the community. Exceptions to this spacing include Rose Avenue (east of McCall) and Del Rey Avenue which is designated as a collector. The remainder of the arterials have developed with excellent spacing.

Typical of rural cities in the Central Valley, Selma's collector street system has not been fully developed. Due to the diagonal development of the local collector street system in the downtown area, continuity of collector streets is not optimal. Overall, collector streets in Selma generally balance their mobility and access functions adequately. In the core area of town the collectors are located on through streets such as Orange Avenue, Thompson Avenue, and Dockery Avenue, with Thompson and Dockery being broken collectors. In the newer areas of the community, collectors are located near the half-mile mark between arterials.

CONNECTIVITY

The success of a community's street system is greatly affected by the concept of connectivity. Connectivity describes the continuity of a street system. Typically, street systems develop over a long period of time and can develop missing links in the network. These missing links can create both local and community wide problems as the traffic that would logically use the missing link must use another street to complete a trip. Selma's street system has developed with several connectivity problems and several others that may cause problems in the future.

Generally, Selma has developed its existing street system with excellent connectivity. Most of the arterials are continuous within the community and the expansion of these facilities to provide for future development can be accommodated. McCall Avenue and Rose Avenue are the two arterials which do not provide continuous connectivity through the City.

Nelson Boulevard, Dockery Avenue, Thompson Avenue, and Nebraska Avenue are the collector streets which do not provide complete connectivity and inhibit the continuity of traffic flow, thereby requiring travelers to link with other streets in order to complete their trip. The City's current policy of breaking collectors at arterials inhibits through movements on the collectors. This policy will lead to the creation of multiple signalized intersections on arterials and increase costs associated with multiple signalized intersections. Selma does have three transportation facilities that influence the connectivity of the collector street system. The Southern Pacific Railroad bisects the community. While the arterial system has developed around this rail line without breaks in connectivity, the railroads' policy of limiting the number of at-grade crossings greatly affects the location and layout of collector streets. The Southern Pacific rail line influences the development of collectors east and west of Golden State Boulevard. In addition to the rail lines, SH 43, SH 99 and Golden State Boulevard will influence future east/west collectors.

Plan Lines

In order to accommodate land development in a fair and efficient manner, cities and counties often adopt a series of Plan Lines for future street expansion. The following Plan Lines have been established in the Selma area:

Rose Avenue	- Dockery to Bethel
Floral Avenue	- Dockery to Del Rey
Floral Avenue	- Highland to Thompson
Floral Avenue	- "A" to Wright
McCall Avenue	- Huntsman to Manning
McCall Avenue	- High to Dinuba

City of Selma General Plan 1997 Update
Circulation Element

TRANSIT

The City of Selma and the surrounding areas are served by a number of public, private, and social service transportation organizations. The following provides a description of some of these transit services.

Public Transit

The City of Selma, under an inter-agency services agreement with Fresno County Rural Transit Agency (FCRTA), operates fixed route and demand response public transportation services within Selma's Sphere of Influence. Operation and maintenance of FCRTA owned vehicles serving the Selma area is performed by the City of Selma and outside vendors. The City of Selma provides drivers, dispatchers, a transit coordinator, and some vehicle maintenance. The Consolidated Transportation Service (CTSA), under contract with the Fresno County Economic Opportunities Commission (FCEOC), provides service to the Selma on Saturdays. The FCRTA is responsible for preparing budgets, allocating financial resources, conducting marketing programs, preparing grant applications, and contracting for services.

These two services utilize four (4) lift equipped vans; three are currently used for demand response service while one is used for fixed route service. Both services operate Monday through Friday from 8:00 a.m. to 5:30 p.m. The fixed route completes its loop every 30 minutes. Saturday service is provided by one demand response bus between 8:00 a.m. and 4:30 p.m. One-way fares for either service are 50¢ for the general public or 35¢ for elderly (60+) and disabled persons. Service areas for both systems are shown on the following pages.

Ridership for Selma Transit totaled approximately 66,600 passengers for Fiscal Year (FY)1994/95 versus 56,000 in FY 1993/94. Selma Transit fares for Fiscal Year 1994/95 totaled approximately \$35,800 and the remaining revenue of \$216,600 came from local sources. Total costs and revenues amounted to approximately \$252,400.

Private Transportation

Inter-city service to Fresno is available on Greyhound and Orange Belt Stages daily. Reduced fare tickets may be purchased through the City Hall. Trips for the elderly and disabled, unable to negotiate the steps of a common carrier bus, are accommodated every Tuesday by the FCRTA's demand responsive South-East Corridor Service. Fares are equal to those charged by the common carriers.

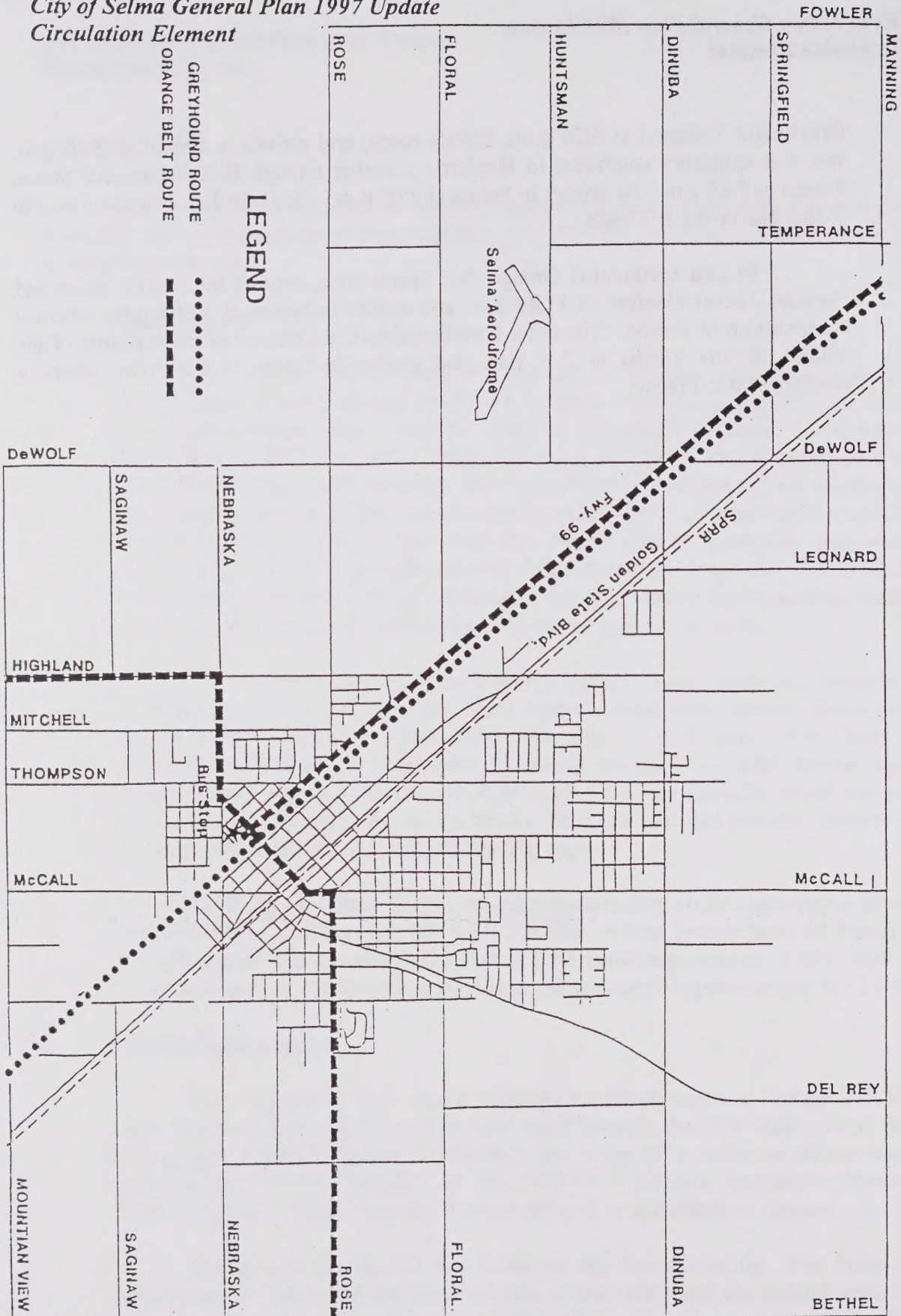
Orange Belt Stages runs four buses per day through Selma. Two buses make connections in Selma serving the west side of the valley and the coastal areas while two other buses serve the east side of the valley. The first bus leaves the Fresno

City of Selma General Plan 1997 Update
Circulation Element

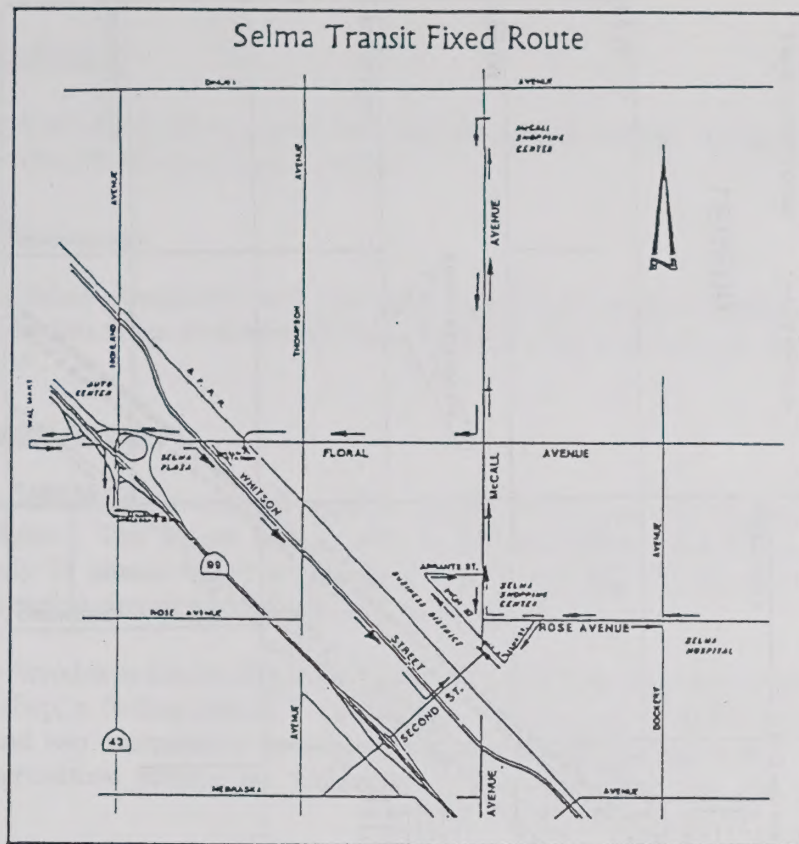
Greyhound Terminal at 5:20 p.m., travels south, and arrives in Selma at 5:40 p.m. where it continues southwest to Hanford. Another Orange Belt Stages bus leaves Fresno at 1:45 p.m. and arrives in Selma at 2:05 p.m. This bus then continues east to Parlier and down to Visalia.

The first northbound Orange Belt Stages' bus, serving the coastal cities and Hanford, leaves Hanford at 11:40 a.m. and arrives in Selma at 12:05 p.m. where it continues on to Fresno. The other northbound bus, which serves the east side of the Valley, departs Visalia at 3:40 p.m. and arrives in Selma at 4:50 p.m. where it continues on to Fresno.

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Circulation Element



INTERCITY BUS SERVICE



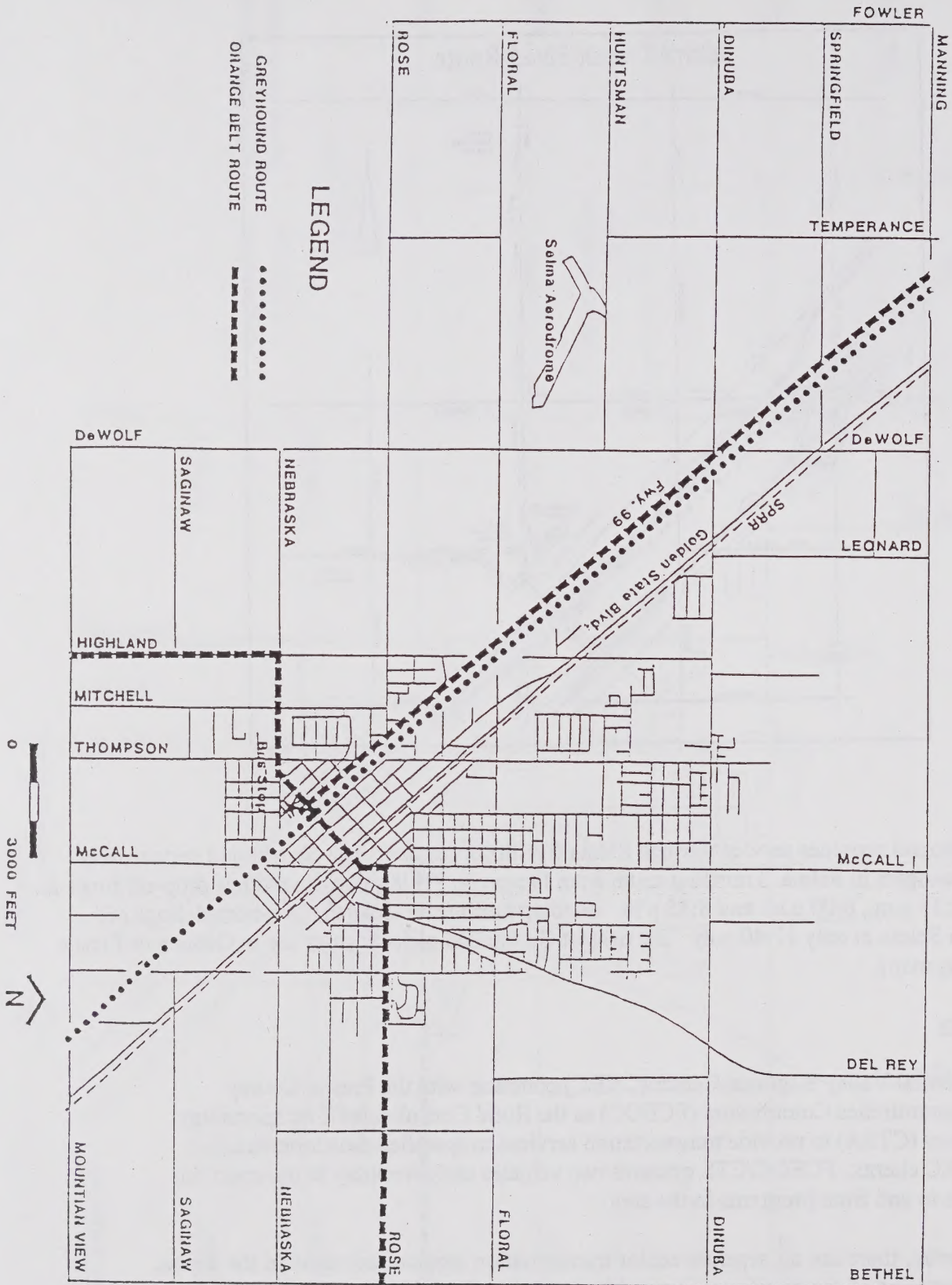
Greyhound provides service through Selma five times per day. The Greyhound service only drops off passengers in Selma. Traveling south from Fresno on SH 99, Greyhound has drop-off times at 10:30 a.m., 2:35 p.m., 6:00 p.m. and 8:35 p.m. Heading north from Goshen, Greyhound drops off passengers in Selma at only 11:40 p.m. The nearest Greyhound pick-up stops are in Goshen or Fresno (see following map).

Social Service

The Central Valley Regional Center (CVRC) contracts with the Fresno County Economic Opportunities Commission (FCEOC) as the Rural Consolidated Transportation Service Agency (CTSA) to provide transportation services to specified developmentally disabled CVRC clients. FCEOC/CTS operates two vehicles each weekday to transport the CVRC clients to and from programs in the area.

Currently, there are no separate senior transportation service programs in the Selma area. Transportation of senior citizens is provided by Selma Transit.

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INTERCITY BUS SERVICE

City of Selma General Plan

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Taxi Service

Currently, there are no private taxi services based in Selma. Selma Transit's demand response service satisfies taxi service needs.

AVIATION

The Selma Aerodrome is a privately owned and operated facility that is located approximately two miles northwest of Selma between Huntsman Avenue and Floral Avenue west of SH 99.

General Aviation

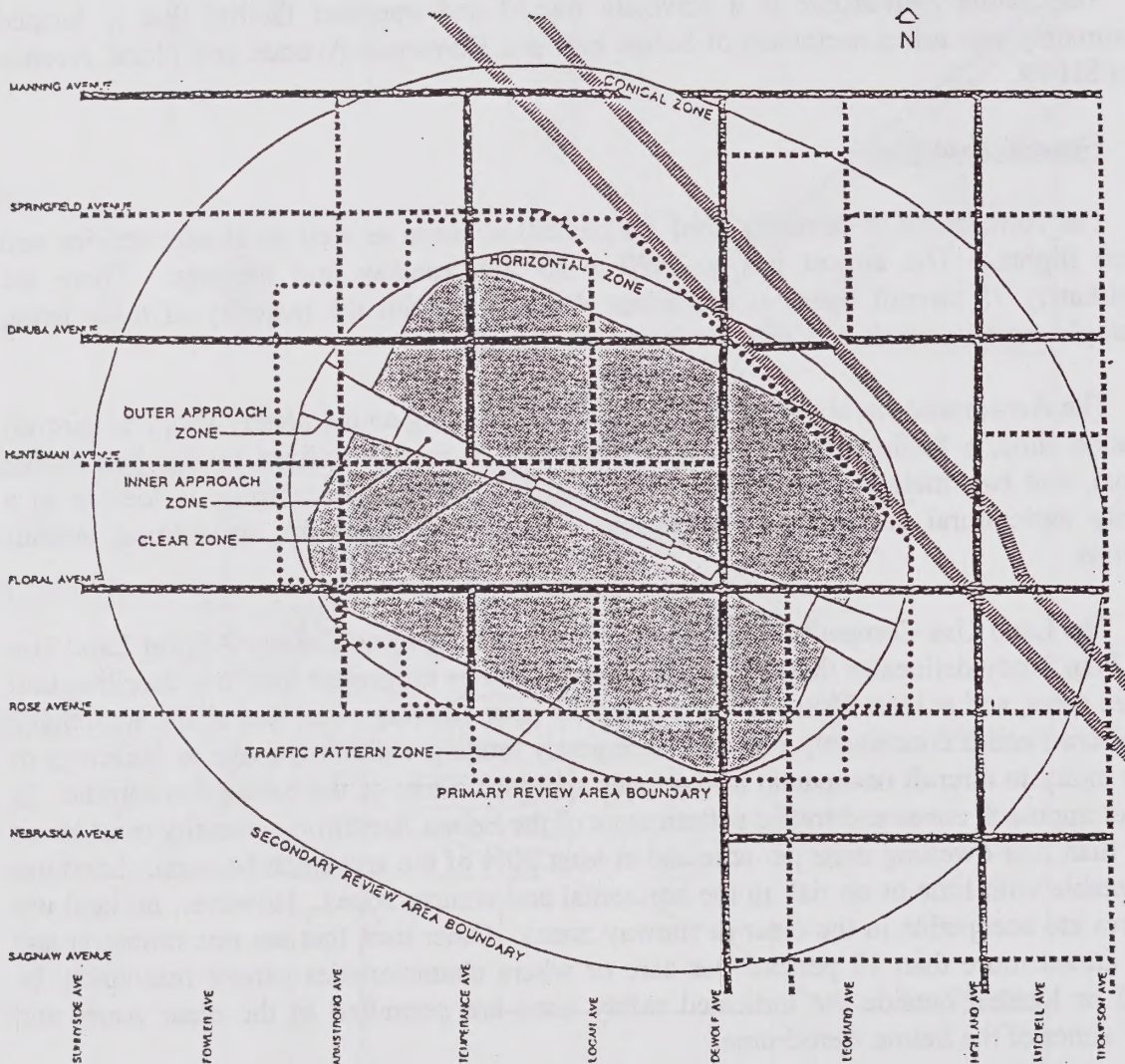
The Aerodrome is currently used for general aviation as well as charter service and business flights. The airport has a 2,490 x 50 foot runway and hangars. There are approximately 75 aircraft based at the Selma Aerodrome with the majority of these being light, single engine aircraft with some twin engine aircraft.

The Aerodrome has six fixed base businesses including an upholstery shop, an aircraft fabrication shop, a fueling station, a flight school which is also utilized by the Fresno Air Terminal, and two maintenance facilities. Although the Selma Aerodrome is located in a primarily agricultural setting, the Aerodrome is no longer used for agricultural aircraft operations.

The Land Use Compatibility Policies Section of the Fresno County Airport Land Use Policy Plan Study delineates that residential density may be no greater than one dwelling unit per three acres, and at least 20% of the area must be open (having a size and shape such that a small aircraft could conceivably make an emergency landing without damage to buildings or serious injury to aircraft occupants) in the inner approach zones of the Selma Aerodrome. In the outer approach zones and traffic pattern zone of the Selma Aerodrome, density must be no greater than four dwelling units per acre and at least 20% of the area must be open. Land use is acceptable with little or no risk in the horizontal and conical zones. However, no land use structures are acceptable in the clear or runway zones. Other uses that are not structural and do not attract more than 10 persons per acre or where characteristics cannot reasonably be avoided or located outside the indicated safety zone are permitted in the clear zones and runway zones of the Selma Aerodrome.

In the inner approach zones, other uses in structures may be permitted as long as they do not attract more than 10 persons per acre; they are not schools, hospitals, nursing homes or similar uses; and they allow at least 20% of open area. The clear, inner and outer approach, horizontal and conical zones, as well as the primary and secondary review areas, are mapped on the following page.

Selma Aerodrome Airport



SELMA AERODROME AIRPORT

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Other uses which are not in structure and do not attract more than 10 persons per acre or having characteristics that cannot reasonably be avoided or located outside the indicated safety zone are permitted in the clear zones and runway zones. No non-structural uses attracting more than 25 persons per acre are permitted in the inner approach zones. Other uses not in structure are acceptable in the outer approach zones, traffic pattern zone, horizontal zone, and the conical zone.

Commercial Passenger Service

There is no regularly scheduled commercial air passenger service operating at the airport. The closest service is available at the Fresno Air Terminal located 15 miles northeast of Selma in the City of Fresno.

RAIL

Selma is served by the Southern Pacific Railroad. The Southern Pacific Railroad is owned by the Denver and Rio Grande Railroad. This rail line runs through Selma parallel to Golden State Boulevard. This rail line has historically been an important part of Selma's economic and transportation development. Businesses located along this rail line include:

Sunnyside Packing Company
Bennett & Bennett Irrigation Systems
American Raisin Packers
Consolidated Irrigation District
Nutrena Feeds, Inc.
Merco Electric
Blocklite
Cantisano Foods, Inc.
Cinderella Raisins

The Southern Pacific Railroad provides freight service to the Selma Area. Southern Pacific provides service seven days a week, twenty-four hours per day, and runs on the average 15 to 20 100-car freight trains per day through the City on its main north/south line.

BICYCLE AND PEDESTRIAN

Currently, the City of Selma does not have designated bicycle routes, however, the Fresno County Regional Transportation Plan has bikeway routes designated on Golden State Boulevard and Manning Avenue. Cyclists currently comprise a small percentage of the traveling public in the Selma area. Most of the bicycle activity in Selma occurs around the schools by school children. Selma has two high schools, one middle school, seven elementary schools, and one elementary Christian school.

Other than the above, the City of Salem and its various departments have been actively engaged in a number of projects that are designed to improve the quality of life in the City. These projects include the following:

- 1. The City of Salem has been actively engaged in a number of projects that are designed to improve the quality of life in the City. These projects include the following:

1. City of Salem Projects

There are a number of projects that are currently underway in the City of Salem. These projects include the following:

- 1. The City of Salem has been actively engaged in a number of projects that are designed to improve the quality of life in the City. These projects include the following:

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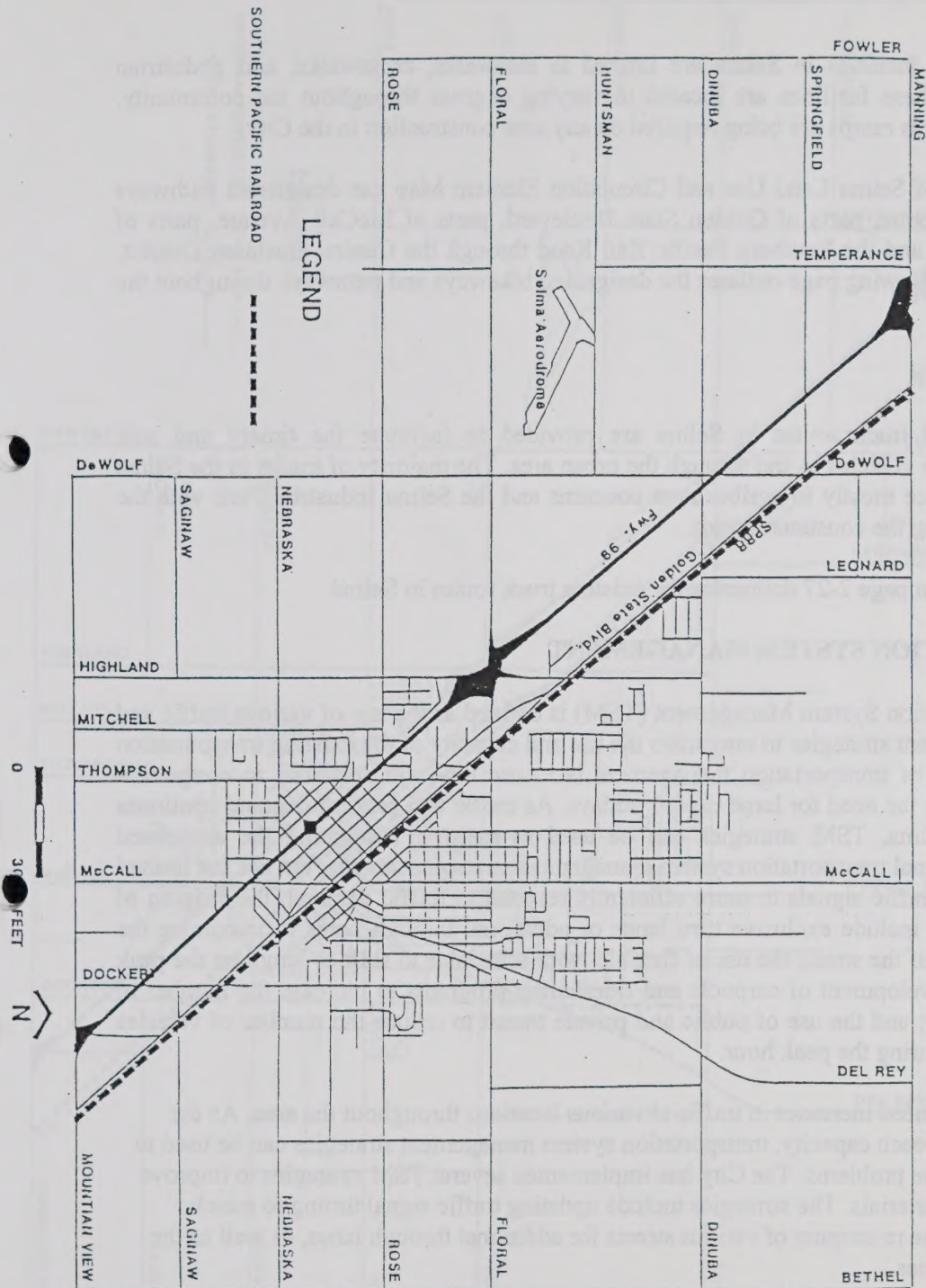
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Circulation Element



RAIL SERVICE

City of Selma General Plan

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Pedestrian facilities in Selma are limited to sidewalks, crosswalks, and pedestrian crossing lights. These facilities are located to varying degrees throughout the community. Curb cuts and access ramps are being required on any new construction in the City.

The City of Selma Land Use and Circulation Element Map has designated pathways along Orange Avenue, parts of Golden State Boulevard, parts of McCall Avenue, parts of Dockery Avenue, and the Southern Pacific Rail Road through the Central Business District. The map on the following page outlines the designated bikeways and pathways throughout the City of Selma.

TRUCK ROUTES

Designated truck routes in Selma are provided to facilitate the timely and safe movement of large vehicles in and through the urban area. The majority of trucks in the Selma area provide service mostly to agribusiness concerns and the Selma Industrial Park with the remainder servicing the consumer sector.

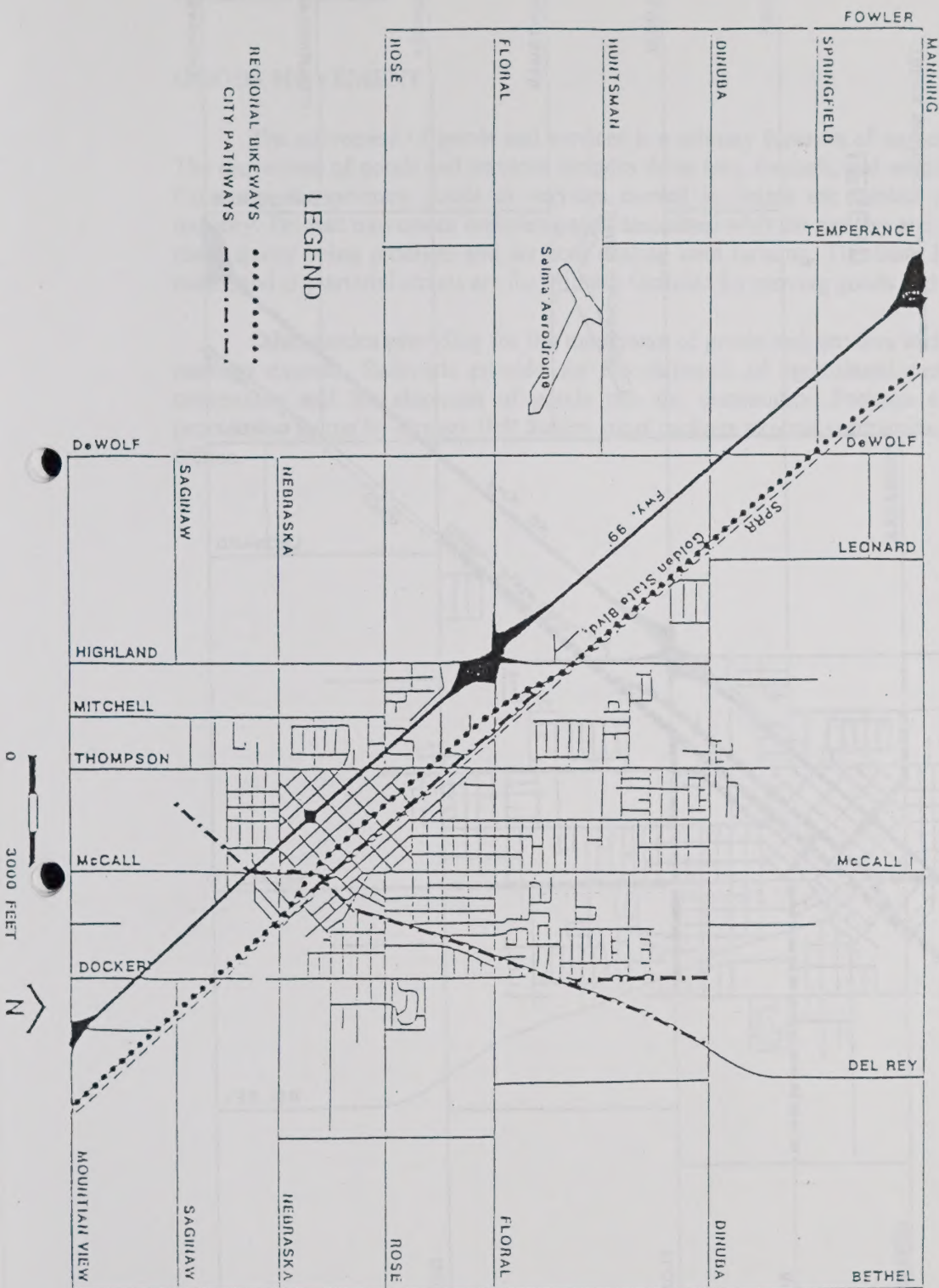
The map on page 2-27 delineates the existing truck routes in Selma.

TRANSPORTATION SYSTEM MANAGEMENT

Transportation System Management (TSM) is defined as the use of various traffic and demand management strategies to maximize the use and capacity of the existing transportation system. The goal of transportation management is to use low cost solutions to congestion problems delaying the need for large capital outlays. As traffic and parking demand continues to increase in Selma, TSM strategies can be used to assist in mitigating the associated problems. Traditional transportation system management strategies include, but are not limited to, the timing of traffic signals to more efficiently respond to traffic demand; the striping of existing streets to include exclusive turn lanes or additional through lanes to maximize the carrying capacity of the street; the use of flexible work schedules to shift or lengthen the peak hour of travel; development of carpools and ridesharing programs to increase the number of people per vehicle; and the use of public and private transit to reduce the number of vehicles using the streets during the peak hour.

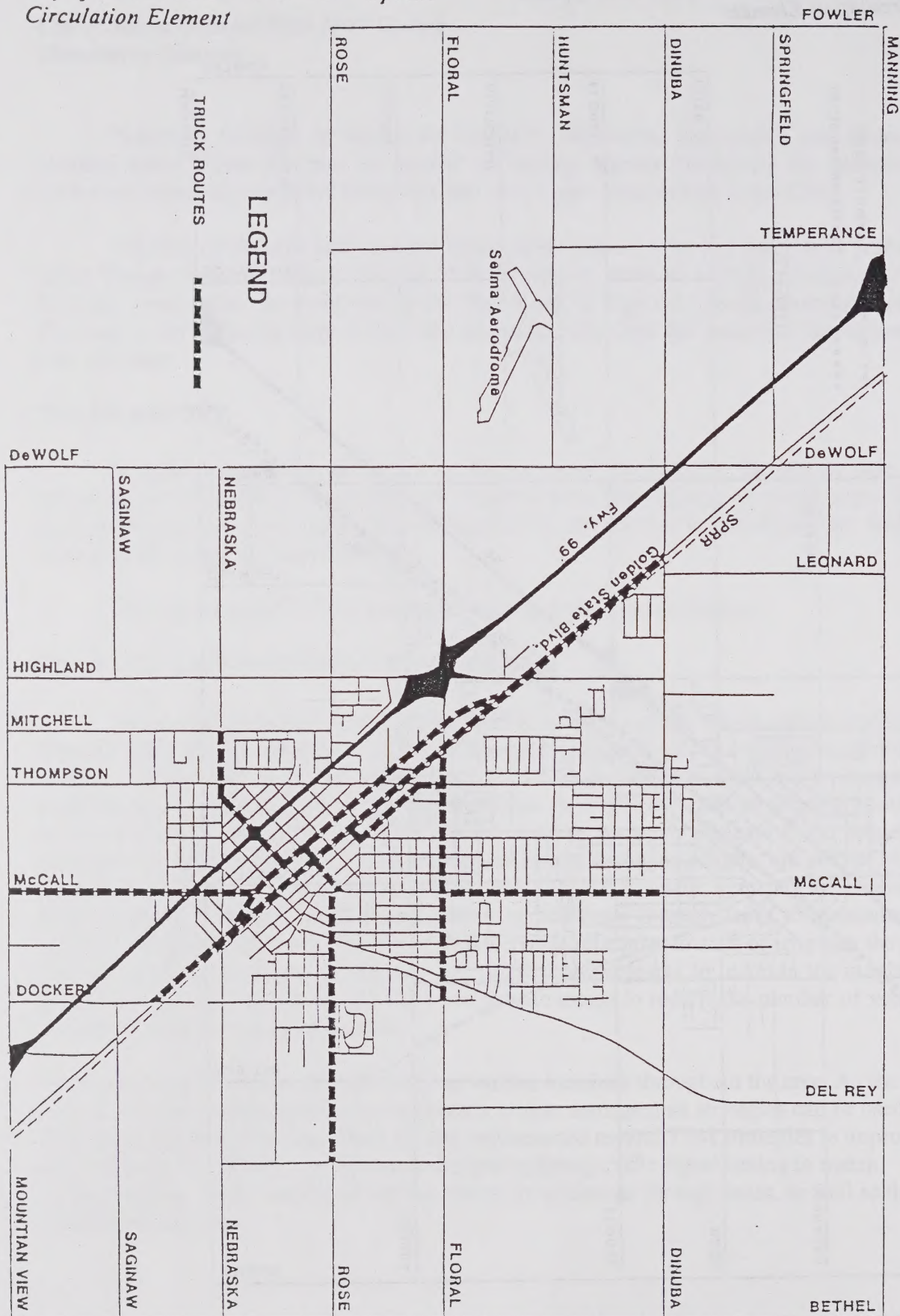
Selma has experienced increases in traffic at various locations throughout the area. As the existing facilities reach capacity, transportation system management strategies can be used to better manage these problems. The City has implemented several TSM strategies to improve many of the City arterials. The strategies include updating traffic signal timing to match current demand, the re-striping of various streets for additional through lanes, as well as the addition of turn lanes.

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REGIONAL BIKEWAYS AND PATHWAYS

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TRUCK ROUTES

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GOODS MOVEMENT

The movement of goods and services is a primary function of any circulation system. The movement of goods and services includes those into, through, and within the community. Currently, the primary goods or services moved in Selma are related to the agriculture industry. Product movement includes goods associated with the grocery and retail trades, with the majority being products and services dealing with farming. The State Highways, county roads, and city arterial streets are the primary facilities for moving goods and services.

Other modes providing for the movement of goods and services include railroads and package express. Railroads provide for the shipment of agricultural products out of the community and the shipment of goods into the community. Package express service is provided to Selma by Orange Belt Stages, most package express companies and the U.S. Post Office.

BOOK REVIEW

The movement of goods and services is a primary function of any nation's economy. The movement of goods and services within a nation is closely related to the movement of people. The primary focus of this book is on the movement of people within a nation. The book is divided into two main parts. The first part discusses the movement of people within a nation, and the second part discusses the movement of goods and services within a nation. The book is written in a clear and concise style, and it is easy to read. It is a good book for anyone who is interested in the movement of people and goods within a nation.

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III. CIRCULATION ISSUES

This chapter focuses on current issues affecting the circulation system in the Selma area, and those issues that will have an effect on the system in the future. Understanding how the circulation system works today will help determine how the system will work in the future, and assist the Community in anticipating future issues that will affect the transportation network.

Issues are covered by area of concern; streets and highways, transit, aviation, rail, bicycle/pedestrian, trucks, transportation system management, and goods movement. In addition, issues affecting the system are discussed in a State context, regional context and from a local perspective.

STATEWIDE ISSUES

Growth will continue to be one of the biggest issues facing the citizens of California for the next two decades. The ability to accommodate population growth will be a major challenge facing the State in the years to come. The San Joaquin Valley is faced with an even greater challenge than the rest of the State. By the year 2040, the valley floor will increase by 9.48 million persons. Fresno County alone is expected to increase by 5.4% annually for the next 46 years. Projections for population growth for the Valley are higher than that of the State as a whole. The issues of growth, coupled with diminishing resources at all levels of government, will adversely impact city budgets, requiring them to be particularly prudent in the administration of services.

Air quality is also a major question that is facing California. Areas such as the San Joaquin Valley are experiencing serious air quality problems. In the Valley the sources of this air pollution are wide ranging. Pollution sources include the San Francisco Bay Area (which is responsible for up to 40% of the pollution in the Valley), Kern County oil industry and mobile sources (interstate trucks and the automobile). The Circulation Element is designed to have a positive effect on air quality by creating a street network that will improve the operating efficiencies of the Community's street system. This is accomplished by decreasing vehicle delays, travel times and engine idling time, all of which contribute to vehicular emissions. The more efficient the Selma circulation system becomes, the fewer delays occur and the less fuel consumed. The Circulation Element can also contribute to improved air quality by laying a framework for the development of a balanced transportation system. The Circulation Element can insure that resources are balanced to match the Community's needs by encouraging the use of all modes for the most efficient transportation of people, goods, and services.

REGIONAL ISSUES

Regional issues are becoming more influential on their impact on the local circulation system. Several issues bear notice as they relate to the future Circulation Element.

Like the State as a whole, the issue of growth will be central to the future of Selma. The growth projections for the Community suggest that the valley-wide growth trend will affect Selma similarly. The future Circulation Element must provide for the corresponding increase in travel by providing a balanced transportation system.

The most critical issue may be the problem of air quality. This issue may have the greatest impact on the development of the Circulation Element, requiring a careful evaluation on how to accommodate the projected population growth with an adequate circulation system. Much of the Valley is considered a non-attainment area for ozone and particulates. Mobile source emissions (cars and trucks) contribute to both of these pollutants. The development of a system to effectively handle the increased number of trips is an issue for all communities in the Valley.

Selma is centrally located to a number of smaller communities and several larger communities that depend on the City's street system for inter-city travel. Added to this factor, the intensity and diverse farming activities surrounding Selma and the issues of intra-regional trips are of prime importance. Trips to and from these outlying communities and farms should be recognized in planning for the future Circulation Element.

The issues associated with "jobs/housing balance" are emerging in Kings, Tulare and Fresno Counties. The relationship between the location where people live and where they work has long been an issue in the Bay Area and Southern California. Locally, the emergence of significant levels of commuters suggests that the transportation system will be asked to accommodate future commuters with patterns historically seen in more urban areas of California. The relationship of the "jobs/housing balance" and the future demands for transportation is a critical item.

Finally, Measure "C", which was passed in 1986 to provide additional funding for transportation purposes in Fresno County, will provide funding for the expansion of SH 43 in the Selma area. SH 43 will be widened to a 4-lane facility from Nebraska Avenue to SH 99. The expansion of SH 43 will accommodate the high traffic volumes that currently exist and continue to increase due to inter-city travel between Hanford and SH 99 to Fresno. At issue will be the need to extend Measure "C" beyond its current sunset date of 2006.

LOCAL ISSUES

Coupled with the concept of growth in the Valley, the creation of jobs within the Community is of critical importance. Equally important in the context of the Circulation

City of Selma General Plan 1997 Update
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Element is the location within the Community of these new jobs. Currently industrial development is taking place in the industrial areas located in the northern and southern sections of town along the Southern Pacific rail line. Housing developments are currently planned for the north, northeast, and southern sections of the Community. This planned land use pattern will require workers to use both north/south arterials for commuting trips to and from work. This represents a fairly balanced approach to the jobs/housing layout within the Community.

The companion to the creation of jobs is the development of commercial growth. The level of retail activity will influence the development of the future street system and require care in the location of regional services. Commercial development is currently occurring to the west of town, which has placed traffic on Floral Avenue and Highland (SH 43), which could increase as growth continues in this direction.

STREET AND HIGHWAY ISSUES

Several issues affecting the street and highway system have surfaced over the past eleven years since the 1983 Circulation Element was completed. Several of these items reflect the effects of outside changes, while several indicate the need to address changes within the Community.

The Southern Pacific rail line has greatly affected the development patterns for the streets in Selma. The layout of the downtown streets reflect the original layout of the rail line. Today the railroad affects the circulation system through traffic delays as the trains pass through the city. The railroad also impacts the circulation system by limiting the number and location of grade crossings within the Community. This places added emphasis on selected street crossings to handle all traffic wishing to cross the tracks.

The issue of the conversion of 2 lane streets to 4 lanes must be addressed in the future as traffic volumes increase. Currently, arterials are typically constructed on an 84' right-of-way with a 64' curb-to-curb design. When these streets are converted to 4 lanes with left turn pockets, all on-street parking is removed. This will affect businesses, truck deliveries and future transit operations in commercial areas. In residential areas, some homes lose the on-street parking and are limited to on-site parking.

Specific issues have been raised in regard to improving the ingress and egress into downtown Selma. The development of improved access and mobility for downtown is of critical importance for the planned land uses in this part of the community.

With the changes brought about by new Federal regulations affecting the size of trucks, the future street system must be modified to adequately handle these larger and heavier vehicles. In 1987, Congress authorized the use of larger trucks throughout the nation. Selma, like many communities, must now provide access to shipping points located on City streets

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Circulation Element

that were not designed for the size or weight of these new trucks. This is forcing cities to evaluate their street standards and in many cases retro-fit new standards on older streets.

Another concern in the Community is the operation of local streets as collectors. This is a common issue for communities the size of Selma. The designation of collectors well in advance of development is one method for eliminating the continuance of this confusion. By determining where and how the collectors will be developed, the street system can be designed to provide the proper balance between mobility and access.

The future street system can also be used to further strengthen the concepts of neighborhoods by physically defining the areas designated by the Land Use Element for growth. The relationship between the location of arterials and collectors and the planned residential neighborhoods can be used to define "neighborhoods". Areas formed by arterials can be used to define distinct sections of the Community.

Finally, in several areas of the Community, residential development has been completed fronting directly onto arterial streets. In the future, these homes will be fronting on heavily traveled streets. The carrying capacity of the arterial streets is greatly reduced by the access function being provided to these properties. At issue is the need to develop side-on and rear-on access orientations to collectors for future residential development. This can be encouraged through a cul-de-sac design along arterials as seen on Nelson Boulevard, east of McCall Avenue.

TRANSIT ISSUES

In November 1994, Selma Transit began operating one fixed route vehicle in addition to its three demand response vehicles. Since then, ridership has continued to increase on the fixed route as demand response patrons are referred to the route when their locations and destinations reasonably coincide. In Fiscal Year 1996/97, the FCRTA will be purchasing a larger capacity electric bus for the fixed route to accommodate ridership.

AVIATION ISSUES

Several issues have arisen in relationship to the future of the Selma Aerodrome. Improving the Aerodrome's facilities has been part of the Community's goals for many years. The City is currently applying for FAA grants to purchase the Aerodrome and upgrade it to a municipal airport.

Noise and safety concerns are the primary issues associated with the development of incompatible land uses near the airport. The location and flight pattern of the Selma Aerodrome places aircraft over southwestern Selma. As additional residential development takes place in this area, aircraft noise may become an issue. Noise and safety concerns are the primary issues associated with the development of incompatible land uses near the airport.

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Based on the Land Use Compatibility Policies Section of the Fresno County Airport Land Use Policy Plan Study, development around the Selma Aerodrome is limited. Currently, development is progressing towards the eastern and southern portions of the Aerodrome. However, density will be restricted in the inner and outer approach zones of the Aerodrome due to residential zoning guidelines. Currently, land use is acceptable with little or no risk in the horizontal and conical zones. However, no land use structures are acceptable in the clear or runway zones.

RAIL ISSUES

The long-term health of the rail industry continues to be affected by competition from trucking. The rail industry is restructuring its organizations to become more competitive; Southern Pacific Railroad represents one example. Because underlying economic demands are facing the Southern Pacific Railroad, care must be exercised in circulation and land use decisions that might affect current and potential rail shippers.

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Circulation Element

The continuing development in the Selma Industrial Park will increase the demand for rail service along the Southern Pacific line. This increase in rail service will strengthen rail freight service to and from the Community. The need to strengthen the number and volume of shippers along both rail lines is important to the long term economic health of the Southern Pacific Railroad.

Southern Pacific might consider extending rail line access down Nebraska Avenue to service the new industrial areas at the southern end of town. Railroad policies might also be developed for corridors and zoning.

AMTRAK service along the Southern Pacific Rail Line between Fresno and Bakersfield has been promoted by representatives from Tulare County. Discussions have centered on the addition of a new train on the Southern Pacific line. No decision has been made on this issue and discussions will continue within the State Budget process.

BICYCLE AND PEDESTRIAN ISSUES

A lack of a comprehensive bicycle plan is typical of a community the size of Selma. As Selma grows, discussions surrounding the need for bicycle routes will be raised. Bicycle traffic comprises a small percentage of the overall traffic in the City. Bicycle routes could encourage people to use this alternative form of transportation and provide recreation for citizens in the Community.

Also, the introduction of on-street bike lanes has been a discussion item for some time. On-street bike lanes can be an effective traffic control device when the volume of bike traffic is sufficient. However, on-street bike lanes can create vehicular/bicycle confusion and great care should be taken in their use. The development of a comprehensive bikeway plan might be considered as part of the long-range plan for the city to coincide with future growth patterns. This plan should focus on the development of bike lanes and/or bike paths around schools, parks and possibly the canal along Orange Avenue which meanders through the City. The provision of a basic bikeway system might be considered in order to meet air quality mandates and local congestion management ordinances.

Several areas in Selma lack adequate pedestrian facilities. New construction requires curb and gutter improvements along with the installation of sidewalks and curb cuts in many areas. However, it will be difficult to mitigate a lack of sidewalks in some sections of the Community due to their number and scattered locations.

TRUCK ROUTE ISSUES

Trucking will continue to be the major mode for the movement of goods into and out of Selma. With the continued urbanization of the area, the shipment of agricultural products will be augmented by the ever increasing amounts of consumer goods.

TRANSPORTATION SYSTEM MANAGEMENT ISSUES

The use of transportation system management strategies is becoming more applicable in the cities in the Central Valley. As cities continue to grow, the development of a wide range of strategies will be seen. These strategies can be used not only to relieve congestion, but can be expected to assist in the improvement of mobile source emissions. The application of existing strategies and the innovation of new strategies will continue over the years to come, and will be essential to facilitate continued development in the region.

GOODS MOVEMENT ISSUES

The efficient movement of goods and services will continue to be a primary issue for the circulation system. As Selma's population grows, delivery truck traffic can be expected to increase, which will place an added burden on the Community's system. The location of major distribution or manufacturing plants in the Community will increase the regional and statewide shipping of goods into and out of the area.

As development proceeds northeast of the City up to Manning Avenue, the Circulation Element should ensure that transportation development coincides with future land development by accommodating the power transmission lines that parallel the Del Rey Avenue and Dockery Avenue alignments. As development proceeds thus far, several options will need to be considered with respect to transportation infrastructure. Options include the construction of a divided arterial with a median containing the power lines. Under this option, traffic would flow on either side of the power lines. Another option might also be the development of the arterial on one side, parallel to the power line.

TESTS OF PLANT INDUSTRY

The tests of plant industry are of two kinds, namely, the tests of the plant itself and the tests of the products of the plant. The tests of the plant itself are of two kinds, namely, the tests of the plant's growth and the tests of the plant's yield. The tests of the products of the plant are of two kinds, namely, the tests of the products' quality and the tests of the products' quantity.

The tests of the plant's growth are of two kinds, namely, the tests of the plant's height and the tests of the plant's weight. The tests of the plant's height are of two kinds, namely, the tests of the plant's height at a given time and the tests of the plant's height at a given place. The tests of the plant's weight are of two kinds, namely, the tests of the plant's weight at a given time and the tests of the plant's weight at a given place.

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TESTS OF PLANT INDUSTRY

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IV. POLICY SECTION

This section of the Circulation Element establishes the framework for the implementation of the community's planned circulation system. The policies as outlined in this section support the development of a circulation system which is consistent with all other elements in the Selma General Plan, as well as regional and State plans and programs.

The City of Selma has adopted a number of policies affecting transportation over the years, and this document expands upon them. The intent is to present a comprehensive set of policies that govern the interface between land use and transportation, and to set out a policy blueprint of how new transportation facilities are to be developed in the future.

Transportation has become an integral part of people's daily lives and meeting the transportation needs of an increasingly mobile public is an important concern for the City. However, care must be taken to assure that the kind of transportation facilities required to move the people and the goods will not degrade the quality of life.

The Policy Section defines the terminology to be used in describing the community's street system. A functional street classification system is also presented. Finally, the goal, objectives and policies for the development of the community's transportation system are presented.

STREET CLASSIFICATION

The street classification for Selma is intended to divide traffic facilities into five functional categories. The categories are intended to define the functional use of that particular facility and assist in the development of a hierarchical system of streets. This system of streets is intended to balance the land access function and the mobility function of the Community's street system. The following list outlines the intended purposes of each street classification.

Selma Street Classifications

- Freeways - Intended exclusively for movement of high volumes of inter-city, regional, and longer local trips at high speeds.
- Expressways - Intended for movement of high volumes of inter-city and longer distance local trips at high speeds. Direct access to adjoining property is restricted. Access to the expressway limited to at-grade intersections with arterials and collectors at half-mile intervals.

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Circulation Element

- Major Arterials - Intended to provide a high level of capacity in selected high volume corridors; provides connections to the freeway system via interchanges, to arterials and to collector streets; provides access to major traffic generators. Typically designed with 6 lanes for through traffic, a parking/transit/right turn lane, and a median with dual left turn lanes at intersections.
- Arterials - Intended to provide the majority of the City's traffic carrying capacity; provides connections via interchanges to the freeway system and via street intersections to the collector streets; may also provide access to major traffic generators. Typically designed with 4 lanes for through traffic, two parking/transit/right turn lanes, and a median with single left turn lane at intersections.
- Collectors - Intended to provide connectivity between the local streets and the arterial street system; also provides access to major activity centers and some adjacent land uses. Typically designed with two lanes for through traffic, two parking/transit/right turn lanes and a lane for left turn access.
- Local Streets - Intended exclusively to provide access to adjacent land uses. Typically designed with two through lanes with parking on both sides.

GOAL, OBJECTIVES AND POLICIES

The following goal, objectives and policies have been established for the development and maintenance of the Community's circulation system. They are intended to assist in implementing the planned transportation system, to insure the adequacy of the implemented facilities and systems and to provide for consistency with the other Elements of the Selma General Plan. For the purposes of this Circulation Element, the following definitions are provided for the goal, objectives and policies.

* NOTE: New policies are identified in italics.

Goal: is the end toward which effort is directed; it is general and timeless.

Objective: is a completed action or point to be reached; it is capable of both attainment and measurement.

Policy: is a course of action selected from alternatives to accomplish one or more objectives.

GOAL

Provide high quality, efficient and safe transportation, sewer, water, and storm drain facilities while maintaining the social, economic, and environmental quality in the Community.

Objectives

The following objectives shall be used to guide the development of the circulation system.

- 1.1 Provide a transportation system which supports planned land use;
- 1.2 Efficient transportation of goods and the effective movement of all segments of the population throughout the Community;
- 1.3 Make efficient use of the existing transportation facilities;
- 1.4 Protect the quality of the City's environment; and,
- 1.5 The wise and equitable use of economic and natural resources.

Policies

To guide the orderly and efficient development of the circulation system in the community; to insure the preservation of existing critical circulation components; and to preserve areas deemed critical to the efficient movement of persons and goods in the community, the following policies are established:

Transit

- 3.1 Provide demand-responsive taxi service in conjunction with the Council of Fresno County Governments (COFCG) and Fresno County;
- 3.2 Provide convenient and efficient taxi service to the elderly, handicapped, and low-income population of the City and its environs;
- 3.3 Coordinate transit services through the City Manager and in conjunction with surrounding cities, and the County of Fresno, and Council of Fresno County Governments;
- 3.4 Cooperate with the COFCG in providing transit service and planning to meet the social and economic needs of all segments of the community;

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- 3.5 Provide benches, telephones and shaded areas at major transit destinations so people can utilize the transit system safely and comfortably. The City shall determine such need based on site plan review procedure and other planning implementation methods;
- 3.6.a Major arterials, arterials, and collectors will be designed to allow transit vehicles to pull out of traffic. This policy may be implemented with either a continuous parking lane with bus stops, or with special bus pull-out lanes.
- 3.7.a Transit centers/stops shall be established to encourage the interface between commercial centers, high density residential uses and the transit system.

Streets and Highways

- 3.8 Arterials should be developed as shown in the Circulation Element of the General Plan
- 3.9 The Plan shall act as a guide to determining the function of major streets.
- 3.10 Expressways should be at least four divided lanes, with limited access at one-half mile points.
- 3.11 Arterials shall be improved to four lanes, with appropriate variations in intersection design to alleviate special traffic problems where necessary.
- 3.12 Floral Avenue from U.S. Route 99 to Dockery shall be widened to four lanes, either by street widening or by elimination of parking as traffic generation warrants;
- 3.13 City circulation system street alignments shall be coordinated with Fresno County circulation system street alignments.
- 3.14 Local collectors shall serve residential neighborhoods, but shall not be used to carry through traffic or high traffic volumes. Actual design and improvement to ultimate standards shall be achieved through inclusion of facilities as part of the City-wide Capital Improvements Program, or by new developers as areas adjoining the designated circulation system are developed, with allowance for bicycle lanes, where planned.
- 3.15 If Heartland High School is ever abandoned (although this is not currently planned), a more direct route shall be developed from Rose Avenue to Whitson Street, and a connection to Arrants Avenue provided, including an improved railroad grade crossing.
- 3.16 The City of Selma should request that Selma's Circulation Element be incorporated into the Fresno County General Plan.

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Circulation Element

- 3.17 A one mile arterial frequency grid system plan shall be used to allow efficient access to commercial areas of the City and to support the three major commercial areas of the City, including McCall Avenue at Dinuba, the downtown area and the Floral/U.S. Route 99 area.
- 3.18 The City shall increase the intersection efficiency (level of service) at McCall Avenue and Nelson Boulevard by requiring a turning lane for northbound traffic on the north side of Nelson Boulevard.
- 3.19 Extend McCall Avenue as a four lane divided arterial north of Dinuba to serve future commercial and multiple-family residential developments.
- 3.20 Collector streets shall be at approximately one-mile intervals centered between arterial streets and shall be planned to intersect with other streets so as to maximize traffic safety and discourage fast flowing traffic through residential areas. Where possible, major arterials, arterials, and collectors shall form 4-leg, right-angle intersections; jog, offset and skewed intersections of streets in near proximity shall be avoided where possible.
- 3.21 Residences shall not be permitted to have direct access onto arterials, particularly where traffic volumes are likely to create excessive noise levels or safety hazards.
- 3.22 The primary purpose of arterials is to carry traffic. Parking should be discouraged on such streets and eliminated where it now exists, along existing arterials as deemed appropriate by the Traffic/Streets Commission and as traffic safety conditions warrant.
- 3.23 McCall Avenue between Arrants and Floral Avenue shall be designated as a seventy foot arterial street and plan lines have been developed accordingly. This will provide for four lanes with no on street parking.
- 3.24 It shall be the policy of the City to develop major streets in the community as follows:

Four Lanes Divided

McCall Avenue from Manning Avenue to Dinuba Avenue
Floral Avenue from Whitson to west of SR 99
Whitson Avenue in its entirety
Golden State Boulevard in its entirety
Highland Avenue from Golden State Boulevard to Mountain View
Mountain View Ave. from U.S. Route 99 to easterly limits of sphere of influence

- 3.25 All street and roadway improvements shall be in accord with the Circulation Plan.

City of Selma General Plan 1997 Update
Circulation Element

- 3.26.a. The City's functional street classification system shall include Freeways, Expressways, Major Arterials, Arterial, Collector and Local Streets.
- 3.27.a. The street network should provide a quick and efficient route for emergency vehicles, including police, fire and other vehicles, when responding to calls for service. The length of single-entry access routes shall be restricted.
- 3.28.a. Major arterials shall be built in areas where traffic demand warrants the development of this facility to meet the adopted level of service standard.
- 3.29.a. Arterial streets shall be built at a typical separation of one (1) mile.
- 3.30.a. Collector street shall be built at a typical separation of one mile, typically between adjacent arterial streets.
- 3.31.a. Major arterial, arterial and collector street standards shall be developed which provide adequate capacity for their appropriate function, and these shall be incorporated into the City's Standard Specifications for Public Works.
- 3.32.a. Median breaks and driveway standards for major arterial, arterial and collector streets directly affect the performance of these roadways, and the following minimum standards have been developed to facilitate the proper operation of these roadways:

Major Arterial and Arterial Street Standards

- i.a. Driveway access to major activity centers (locations that generate more than 5,000 daily trips) should be located no closer than 200 feet to the adjacent intersection of a collector or arterial street. (Measurement shall be from the curb return to the nearest edge of the driveway). If driveways must be provided near intersections for facilities (such as service stations) these driveways shall not be serviced by median breaks and shall be located no less than 100 feet from the intersection (measurement shall be from the curb return to the nearest edge of the driveway). If more than one is required to serve a property, the driveways shall be separated by 150 feet. (The 150 feet are to be measured edge to edge, not centerline to centerline).
- ii.a. The distance between driveways along commercially developed arterials should not be less than 400 feet (measurement shall be from centerline to centerline). Where this spacing is not practical, the development shall provide acceptable traffic mitigation measures in addition to those already required.
- iii.a. Where practical and desirable, driveways should be located on adjacent collector streets rather than on arterial streets.

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Circulation Element

- iv.a Driveway consolidation shall be encouraged through joint access agreements along arterials where standards a. through e. are exceeded.
- v.a Full median breaks, where there is no adopted design, should provide access to collector streets and to major activity centers and should parallel the standards for driveways: not less than 200 feet from an adjacent intersection of an arterial or collector street, and not less than 1,000 feet between full median breaks.

Collector Street Standards

- i.a Driveway access to major activity centers should be located no closer than 150 feet to the adjacent intersection of a collector or arterial street. (Measurement shall be from the curb return to the nearest edge of the driveway). If driveways must be provided near intersections for facilities (such as service stations) these driveways shall not be serviced by median breaks and shall be located no less than 100 feet from the intersection. (Measurement shall be from the curb return to the edge of the driveway). If more than one is requested to serve a property, the driveways shall be separated by 150 feet. (The 150 feet are to be measured edge to edge, not centerline to centerline).
- ii.a The distance between driveways and intersecting local streets should not be less than 300 feet. (Measurement shall be from the curb return to the nearest edge of the driveway). Where this spacing is not practical, the development shall provide acceptable traffic mitigation measures in addition to those already required.
- iii.a Driveways to residential property along collectors should be consolidated whenever possible.
- iv.a Medians on collectors shall be provided by concrete where left turn control is needed and by painted medians on two-way left turn pockets where appropriate. Where concrete medians are provided, median breaks should be spaced not less than 300 feet apart.

3.33.a Local streets shall not carry an unreasonable level of through traffic. Should it be determined that a local street is carrying an unacceptable level of through traffic, the City may use appropriate means to reduce traffic through creation of one-way traffic flow, installation of traffic diversion devices, and/or any other means deemed to be acceptable under the Vehicle Code of the State of California.

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Circulation Element

- 3.34.a Continue to provide a high level of service to the community. Therefore, the City designates Service Level "C" as defined in the Highway Capacity Manual (published by the Transportation Research Board of the National Research Council) as the minimum desirable service level at which freeways, expressways, major arterials, arterial streets and collector street should operate. All new facilities in these categories shall be designed to operate at this level or better for a period of at least 20 years following their construction.
- 3.35.a The circulation system shall be designed and developed to minimize excessive noise impacts on sensitive land uses and traffic congestion which would increase the rate of vehicle emissions. Development shall mitigate noise and emission impacts [e.g. by constructing sound walls (where warranted), designing to minimize emissions, etc.]..
- 3.36.a Right-of-way essential to the circulation system should be dedicated and/or developed to the appropriate extent and width when a division of property or development occurs. The City shall coordinate street improvements with the County of Fresno so that the same requirements apply within the urban area boundary.
- 3.37.a The right-of-way widths and construction widths of all classes of streets from local to major arterial shall be updated as necessary to reflect the street classifications in the Element.
- 3.38.a Developers shall mitigate traffic impacts associated with their projects to minimize the impacts to freeways, major arterials, arterials, and collector streets.
- 3.39.a The City shall promote an active policy of consolidating driveways, access points and curb cuts along existing developed major arterials, or arterials when development or change in intensity of development or land use occurs or when traffic operation or safety warrants.
- 3.40.a Residential subdivisions shall be designed to encourage access from collector streets and to discourage use of local streets as a bypass to congested arterials.
- 3.41.a Where major arterials, arterials, and collector streets are required, residential development shall be oriented away (side-on or rear-on) from such streets, and shall be properly buffered so that the traffic carrying capacity on the street will be preserved and the residential environment protected from the adverse characteristics of the street.
- 3.42.a Due to the traffic congestion which results from numerous points of ingress and egress along commercial streets, future commercial developments or modifications to existing developments shall be master planned with limited points of ingress and egress onto a major street. Ingress and egress to shopping centers should be carefully designed in order to promote traffic safety. Left-hand movements into and out of

City of Selma General Plan 1997 Update
Circulation Element

commercial areas should be minimized and existing points of ingress and egress shall be consolidated whenever possible.

- 3.43.a In order to promote safe and efficient traffic flow throughout the City, traffic signals shall be spaced no closer than 1/4 mile on arterials except in unusual circumstances. The intersections of arterial and collector streets and the access driveways to major traffic generators shall be located so as to maintain this minimum spacing.

Bicycle and Pedestrian Facilities

- 3.44.a As the community grows and as need warrants, a bicycle lane plan and standard specifications for bicycle routes will be considered. As part of the planning effort, designated regional and county bikeways will be considered. If the City decides to incorporate off-street bike paths, an Ordinance or Resolution must be adopted.
- 3.45.a Sidewalks, paths, and appropriate crosswalks should be located to facilitate access to all schools and other areas with significant pedestrian traffic. Whenever feasible, pedestrian paths should be developed to allow for unobstructed pedestrian flow from within a neighborhood.
- 3.46.a The City shall require curb, gutter, and sidewalks in all areas of the community to accommodate pedestrian traffic, especially along routes with high pedestrian traffic such as schools, parks, and the Downtown area. Installation of these improvements shall be encouraged to the extent feasible in existing neighborhoods where they do not currently exist.
- 3.47.a The City shall promote safe, convenient and accessible pedestrian ways within the community.
- 3.48.a Where security walls or fences are proposed for residential developments along major arterials, arterials, or collector streets, pedestrian access should be considered between the major arterial, arterial, or collector, and the development to allow access to transit vehicles operating on the street.

Parking

- 3.49.a Adequate off-street parking shall be required of all commercial and industrial land uses to accommodate parking demand. Off-street parking shall also be required of residential land uses to accommodate tenants.
- 3.50.a Parking standards shall be evaluated for new development to ensure that parking requirements are satisfied within walking distance of development, and to ensure that arterial streets do not separate parking from the parking demand generator.

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Circulation Element

- 3.51.a Parking standards shall be evaluated to assess the potential for offering reduced parking requirements to development that incorporate measures proven to reduce commute or customer trips.
- 3.52.a The City of Selma shall work with CALTRANS and transit service providers to establish a park and ride lot or lots within the community to serve the needs of regional and local commuters.

Railroad

- 3.53 To preserve the viability of the Golden State Industrial Corridor, uses or activities shall not be permitted to encroach so as to reduce the efficiency of the rail system.

Airports

- 3.54 To preserve the viability of the Selma Aerodrome as a regional general aviation facility, the City adopts the policy plan recommendations of the Fresno County Airports Land Use Policy Plan Study, where applicable.
- 3.55 The City shall discourage land uses surrounding the Selma Aerodrome, which would reduce its ability to function as an element of the transportation system.
- 3.56 Since the Selma Aerodrome serves as the primary air field in the area, efforts shall continue to upgrade the service capacity of the airport.

Pipeline and Transmission Facilities

- 3.57 The City shall endeavor to preserve the integrity of major transmission and canal facilities in the community and, where possible, integrate such facilities into the recreation, open space and conservation element plans of the community.

Transportation System and Congestion Management

- 3.58 The City shall encourage the use of energy efficient and non-polluting modes of transportation.
- 3.59 Transportation System Management and Transportation Demand Management are the applicable strategies for the mitigation of traffic and parking congestion. Public transit, traffic management, ridesharing and parking management are to be used to the greatest extent practical to implement transportation management strategies.
- 3.60 Promote the long term shifting of peak hour commute trips from the single occupant automobile to ridesharing, buses, pedestrian, and bicycles.

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- 3.61 The City of Selma in conjunction with other public agencies and private companies will actively pursue the development of a telecommuting center in Selma.
- 3.62 The use of alternative fueled vehicles will be encouraged.
- 3.63 Large development shall be encouraged to incorporate transit passenger facilities, bicycle racks or lockers, shower facilities, as well as on site services (eating, mail, banking, etc.) as ways to encourage alternative modes for commute trips.

Maintenance and Integration

- 3.64 Provide for the development and maintenance of the community's transportation infrastructure, including streets, sewer, water, storm drain, pipeline, electrical, and communication facilities.
- 3.65 The maintenance of the investment in the existing and future infrastructure is a highest priority for the community.
- 3.66 The City shall maintain a high level of inter-governmental coordination and citizen participation in the circulation and transportation planning process and work with other agencies to assure that regional transportation plans are consistent with the City's General Plan.

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V. FUTURE CIRCULATION SYSTEM

This Chapter describes the Selma circulation system through the year 2015. It includes discussions of City streets and State highways, transit, aviation, rail, bicycle/pedestrian facilities, truck routes, transportation system management, and goods movement. This chapter of the Selma Circulation Element also describes the scenario used in developing the future circulation system. The product of this technical analysis is an identification of future street and alternative transportation mode needs.

While the direction and pace of the City's growth between the present time and 2015 can never be absolutely clear, it is useful to make an estimate of population and employment growth to the horizon year. Such a projection of the future can be used to estimate future traffic and the need for street and highway facilities, thus guiding the planning and development process. The forecast can also help to establish the program of public improvements that will be needed in the future. The use of projected socio-economic data based on the land use plan is also essential in establishing a linkage between the Land Use Element and the Circulation Element as required by State law.

EXISTING 1983 GENERAL PLAN

The City of Selma adopted the current Circulation Element in 1983 as part of the General Plan Update. When the Circulation Element was adopted, limited technical information was available. At that time the Fresno County Regional Traffic Model did not cover the Selma area. Future traffic volumes were provided as part of the 1983 Circulation Element. Those volumes were manually projected to the year 2000.

In addition, no level of service calculations were completed. In order to assess the "no project" alternative, a level of service analysis was completed on the 1983 Circulation Element. That assessment was prepared using a volume-to-capacity technique developed for this study. The capacities were established from information provided in the 1983 Circulation Element. The volume-to-capacity ratios for levels of service were established using the 1965 Highway Capacity Manual procedure. The chart below represents the service levels for build out in the year 2000 which were anticipated in Selma's 1983 Circulation Element.

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Circulation Element

City of Selma CIRCULATION ELEMENT (No Project Alternative - 1983 General Plan)						
June 1996						
Street	Segment	2000 Facility	Geometrics Median	Facility Type	Year 2000 ADT	Level of Service
Leonard	Dinuba to Manning	2 lane	Undivided	Collector	2,000	A
Wright	Dinuba to Floral	2 lane	Undivided	Local Collector	7,300	A
Nebraska	DeWolf to Highland	2 lane	Undivided	Local	3,400	A
	Highland to Thompson	2 lane	Undivided	Arterial	7,900	A
	Thompson to Second	2 lane	Undivided	Arterial	7,000	A
	Front to Dockery	2 lane	Undivided	Collector	3,300	A
	Dockery to Del Rey	2 lane	Undivided	Collector	1,400	A
Rose	DeWolf to Highland	2 lane	Undivided	Collector	3,500	A
	Highland to Thompson	2 lane	Undivided	Collector	6,200	A
	McCall to Dockery	4 lane	Undivided	Arterial	9,200	A
	Dockery to Del Rey	4 lane	Undivided	Arterial	6,000	A
Floral	DeWolf to SH 99	4 lane	Undivided	Arterial	10,700	A
	SH 99 to Whitson	4 lane	Undivided	Arterial	24,400	E
	Whitson to Thompson	4 lane	Undivided	Arterial	19,400	C
	Thompson to McCall	4 lane	Undivided	Arterial	16,600	B
	McCall to Orange	2 lane	Undivided	Arterial	11,400	B
	Orange to Del Rey	2 lane	Undivided	Arterial	3,900	A
Huntsman	Highland to Thompson	2 lane	Undivided	Local	2,500	A
	Thompson to McCall	2 lane	Undivided	Collector	2,500	A
Nelson		2 lane	Undivided	Local	1,800	A
	McCall to Orange	2 lane	Undivided	Collector	8,500	B
Dinuba	Golden State to Highland	2 lane	Undivided	Arterial	10,100	A
	Highland to Thompson	2 lane	Undivided	Arterial	9,300	A
	Thompson to McCall	2 lane	Undivided	Arterial	11,200	B
	McCall to Orange	2 lane	Undivided	Arterial	10,900	B
Highland (SH 43)	Mountain View to Nebraska	2 lane	Undivided	Super Arterial	10,100	A
	Nebraska to Rose	4 lane	Divided	Super Arterial	13,400	A
	Rose to Floral	4 lane	Divided	Super Arterial	15,800	A
	Floral to Whitson	2 lane	Undivided	Arterial	22,200	F
	Whitson to Dinuba	2 lane	Undivided	Arterial	16,300	E
	Dinuba to Manning	2 lane	Undivided	Arterial	7,000	A

City of Selma						
CIRCULATION ELEMENT						
(No Project Alternative - 1983 General Plan)						
June 1996						
Street	Segment	Future Facility	Geometrics Median	Facility Type	Year 2000 ADT	Level of Service
Thompson	Mountain View to Nebraska	2 lane	Undivided	Super Arterial	2,300	A
	Nebraska to Rose	2 lane	Undivided	Super Arterial	1,800	A
	Floral to Dinuba	4 lane	Undivided	Super Arterial	9,100	A
	Dinuba to Manning	2 lane	Undivided	Collector	8,000	B
McCall	Second to Floral	2 lane	Undivided	Arterial	21,500	F
	Floral to Dinuba	4 lane	Undivided	Arterial	26,200	F
	Dinuba to Manning	2 lane	Undivided	Arterial	17,300	E
Dockery	Nebraska to Rose	2 lane	Undivided	Super Arterial	5,000	A
	Rose to Floral	2 lane	Undivided	Super Arterial	5,800	A
Del Rey	Floral to Dinuba	2 lane	Undivided	Local	1,600	A
Golden State/Whitson	Mountain View to Nebraska	4 lane	Divided	Expressway	7,100	A
	Nebraska to Second	4 lane	Divided	Super Arterial	11,400	A
	Second to Floral	4 lane	Divided	Collector	12,900	A
	Floral to Highland	4 lane	Divided	Collector	14,700	A
	Highland to Dinuba	4 lane	Divided	Expressway	12,300	A
Second	Nebraska to SH 99	4 lane	Undivided	Arterial	7,500	A
	SH 99 to Whitson	4 lane	Undivided	Arterial	19,300	C
	Whitson to McCall	4 lane	Undivided	Arterial	20,300	D
Orange	Rose to Floral	2 lane	Undivided	Collector	5,500	A
	Floral to Del Rey	2 lane	Undivided	Collector	7,600	B

City of Selma General Plan 1997 Update

Circulation Element

The estimated future levels of service shown above suggest that Second Street from Whitson to McCall will operate at a level of service "D" in 2000. Floral from State Highway 99 to Whitson, Highland from Whitson to Dinuba and McCall from Dinuba to Manning are all projected to operate at a Level of Service "E". Highland from Floral to Whitson and McCall from Second to Dinuba are projected to see Level of Service "F" with build-out of the 1983 General Plan/Circulation Element.

REGIONAL TRAFFIC MODEL

The Council of Fresno County Governments (COFCG), its member agencies and Caltrans have jointly developed and maintained a microcomputer-based traffic simulation model. This Traffic Model covers the Fresno County Area. The Model contains several hundred discrete socio-economic analysis zones (commonly called traffic analysis zones or TAZ's) and several thousand road segments or network links.

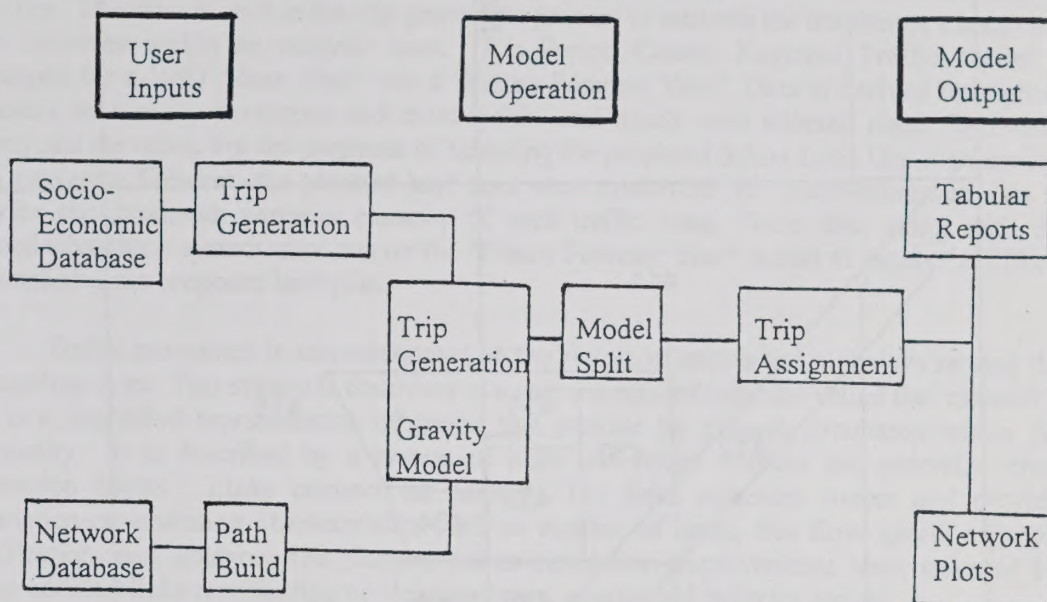
The modeling software used, MINUTP, was acquired from COMSIS Corporation in 1983. The original Traffic Model was based on socio-economic and traffic network data provided by Caltrans. The COFCG has substantially modified this data to expand the area of coverage and to enhance detail of both the socio-economic and traffic network databases. A major milestone in Traffic Model development was achieved in 1994 with calibration of the 1990 base model. Calibration focused on confirming actual 1990 traffic counts to the corresponding data from the Model.

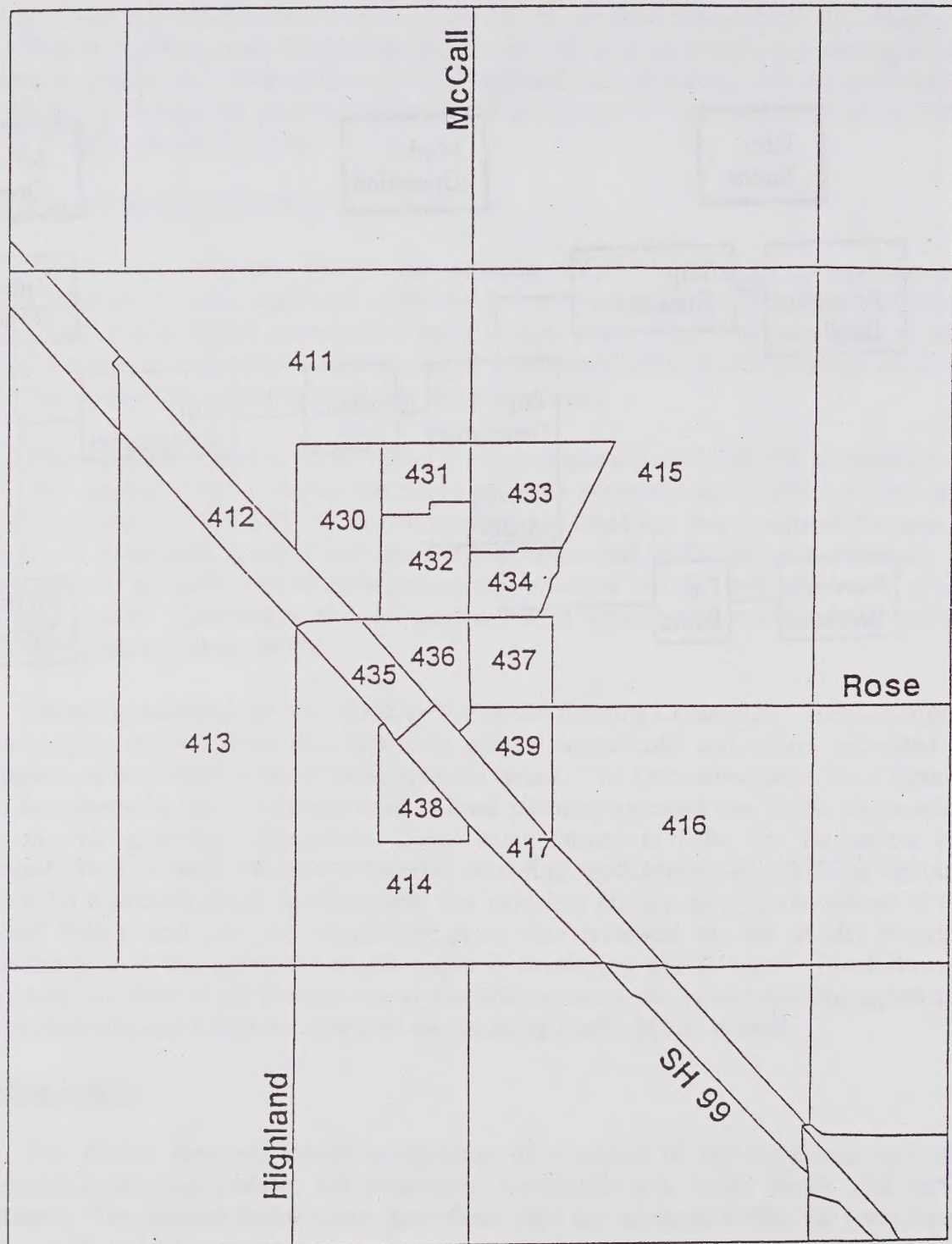
Modeling activities are monitored by the Model Steering Committee. This committee includes representatives from local agencies, private consultants, and others interested in applications of the Model to local traffic analysis issues. The Committee provides a focused forum for presenting traffic related issues to local planning agencies and traffic engineering staffs, as well as project proponents. Since being formed in 1986, the Committee has developed into a valuable resource in monitor modeling applications and providing ongoing direction for continued model development. The modeling process used in assessment of the proposed Selma land use and circulation plans was reviewed by the Model Steering Committee prior to the use of the model output in developing this Element. The following provides an overview of the Fresno County modeling process, the basic modeling inputs and data requirements and a discussion of how the Regional Traffic Model is used.

Modeling Process

The Fresno Regional Model incorporates all elements of the traditional four-step transportation planning process: trip generation, trip distribution, mode choice, and traffic assignment. The diagram below shows how these steps are managed within the three major elements of the modeling process.

Fresno Urban Model – Process Diagram





SELMA TRAFFIC ANALYSIS ZONE

City of Selma General Plan 1997 Update

Circulation Element

User Inputs to Model

The amount of travel and its distinctive elements are directly affected by the use of land. In transportation modeling, land use is described by type, intensity and location of activities. This data is used in the trip generation process to estimate the number of trips to and from activities within an analysis area. The Fresno County Regional Traffic Model is developed for a 1990 "Base Year" and a "Future Forecast Year". Data is derived through an inventory of actually developed and developable land based upon adopted plans for Fresno County and the cities. For the purposes of assessing the proposed Selma Land Use Element and the Circulation Element, the planned land uses were converted into socio-economic data to describe the maximum carrying capacity of each traffic zone. These data along with the planned circulation system were run on the "Future Forecast Year" model to assess the effects of completing the proposed land plan.

Traffic movement is accommodated on the system of streets and highways serving the metropolitan area. This system is described in a user maintained database called the "network". This is a simplified representation of streets that provide for general circulation within the community. It is described by a system of links and nodes. Nodes are generally street intersection points. Links connect the nodes. The links represent streets and provide information on operating characteristics such as number of lanes, free flow speed, capacity classification, and distance. The planned Selma circulation improvements were assessed by adding addition links representing new expressways, arterial and collector streets.

The heart of the transportation model is the "gravity model" which derives its name and basic premise from Newton's law of gravity. Newton's law states that the attractive force between two bodies is directly related to their size and inversely related to the distance between them. Thus, in the "gravity model" the number of trips between areas is directly related to the level of land development within each area, and is inversely related to the distance between the two (distance is expressed as "travel time"). Therefore, high activity areas tend to exchange more trips while areas farther apart tend to exchange fewer trips. In practice, a separate "gravity model" is developed for each trip since different trip purposes exhibit different trip distribution characteristics (i.e. a person who travels 15 miles to work is not expected to travel that far for convenience shopping purposes).

Model Output

Trip Generation gives the number of person trips produced and attracted within each analysis zone, generally called "trip ends". **Trip Distribution** applies the "gravity model" to determine trip interchange between zones. This results in a table identifying trip productions and attractions from each zone to all other zones, generally referred to as the "production/attraction matrix" (P/A Trip Matrix). **Mode Split** is a tool which applies vehicle occupancy rates to the trip matrix to determine the number of vehicle trips; this results in "origin/destination" matrix (O/D Trip Matrix) which is assigned to the network. The end

City of Selma General Plan 1997 Update

Circulation Element

results of these processes are reports identifying projected traffic volumes on each street segment in the network. This is the modeling output most familiar to all users. Other information available includes "vehicle miles of travel" (VMT), "vehicle hours of travel" (VHT), hours of delay, congested speeds, and volume/capacity ratios (V/C). This information is available either in tables or is produced as plotted system maps.

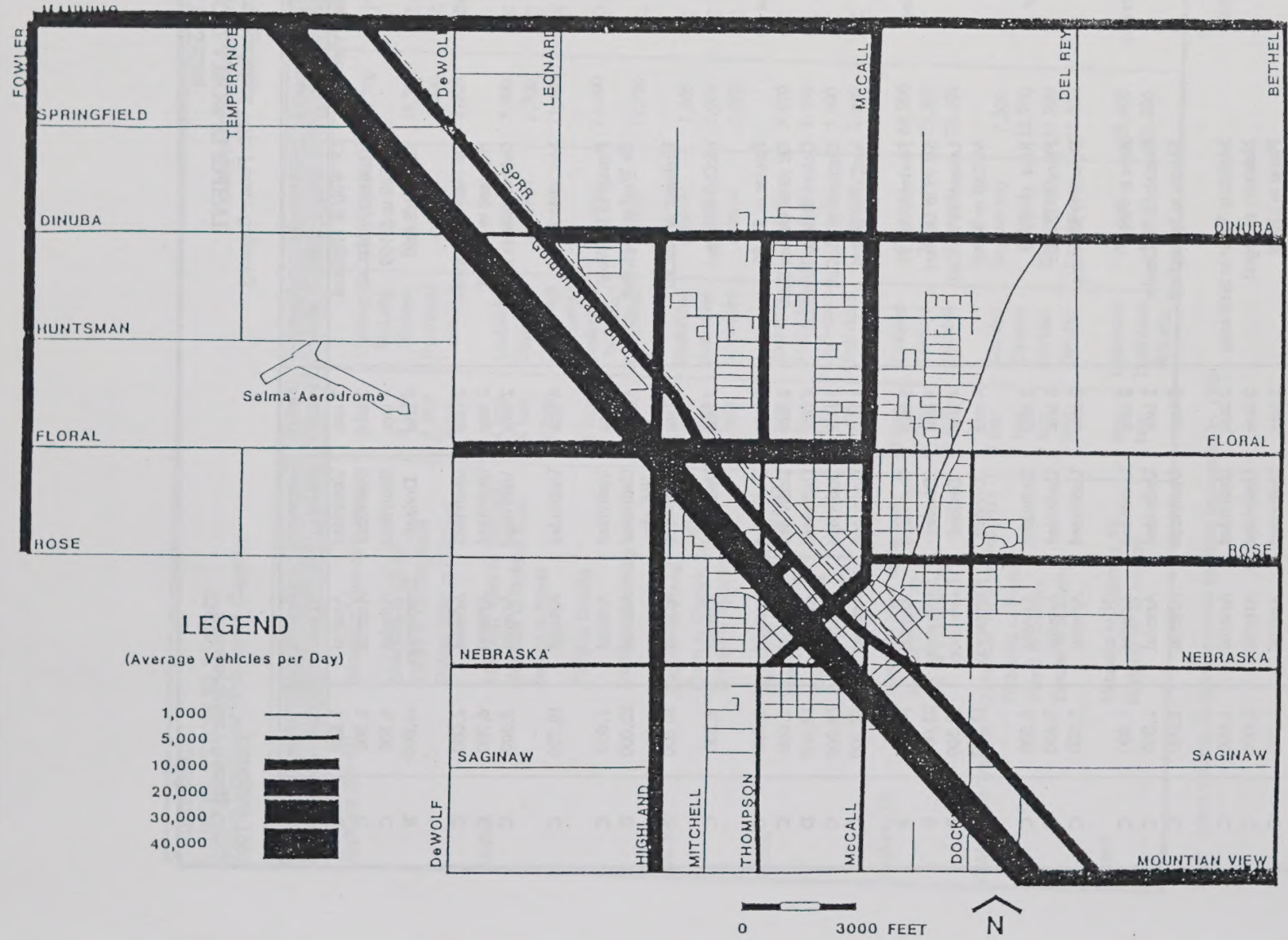
Selma's socio-economic data base for 2015 was developed using the State Department of Finance's projections for population and employment for Fresno County for the year 2015. A future population estimate was completed as part of the Land Use Element update. That estimate projected a 2015 population of approximately 37,600. The population and employment estimates were then assigned by the City of Selma to the TAZ's based on the known parameters of the Selma General Plan. The resulting estimates of population and employment for the City in the year 2015 makes the best use of available data, bounded and controlled by the Statewide and Countywide estimates made by the Department of Finance. The estimates were found to be consistent with the Selma General Plan and, specifically, the Land Use and Housing Elements.

ESTIMATE OF 2015 TRAFFIC

The map on the following page shows the projected traffic volumes on the current street and highway network. The volumes are shown in 1,000's of vehicles per day. Following the Future Daily Traffic Volumes map is a table which contains forecasts of level of service for the planned land use in Selma in the year 2015. The table shows the estimated daily traffic, the capacity of the existing network, and the resulting volume/capacity ratio and service level. Following the level of service chart is a map showing those segments operating at or below "D".

The charts following the Future Daily Traffic Volumes map contain estimated future daily traffic and the projected future level of service. The level of service for each critical street segment has been calculated using capacities from the Florida Department of Transportation's Florida's Level of Service Standards and Guidelines Manual for Planning. This manual provides a method for evaluating freeways, expressways, arterials and collectors. This method was selected for this future analysis because of its intended use in "planning studies" and its consistency with adopted procedures for the Fresno County Congestion Management Program.

The map following the future conditions charts depicts the future level of service that can be expected with projected traffic volumes. The results of the analysis show that four segments of the City's street system will operation at a level of service "D", one segment will operate at a level of service "E" and four segments are projected to operate at a level of service "F".



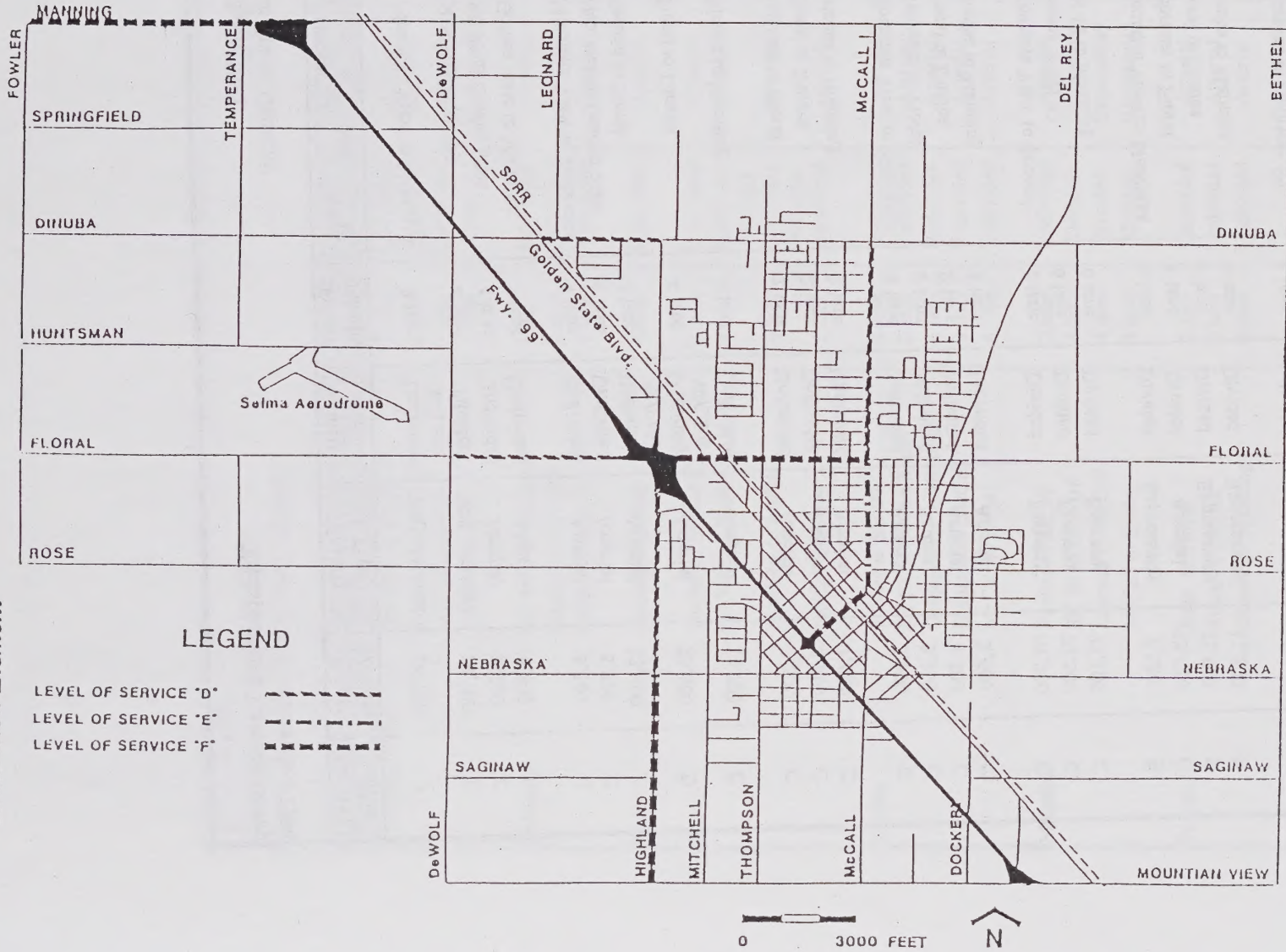
City of Selma General Plan 1997 Update
Circulation Element

City of Selma CIRCULATION ELEMENT Future Conditions With Future Capacity				Transportation Planning Group December 1994		
Street	Segment	Future Facility	Geometrics Median	Facility Type	Future Volume	Level of Service
Mountain View	De Wolf to Highland	2 lane	Undivided	Arterial	1,800	C
	Highland to McCall	2 lane	Undivided	Arterial	3,300	C
	McCall to SH 99	4 lane	Undivided	Arterial	4,100	C
	SH 99 to Bethel	4 lane	Divided	Expressway	14,600	B
Nebraska	De Wolf to Highland	2 lane	Undivided	Arterial	1,000	C
	Highland to Second	2 lane	Undivided	Arterial	6,700	C
	Golden State to Bethel	2 lane	Undivided	Arterial	3,500	C
Rose	McCall to Bethel	4 lane	Undivided	Arterial	10,700	C
Floral	Fowler to De Wolf	2 lane	Undivided	Arterial	1,000	C
	De Wolf to Highland	4 lane	Undivided W/Lefts	Arterial	22,000	D
	Highland to McCall	4 lane	Undivided W/Lefts	Arterial	30,600	F
	McCall to Bethel	2 lane	Undivided	Arterial	6,200	C
Dinuba	Fowler to SH 99	2 lane	Undivided	Arterial	1,000	C
	SH 99 to Golden State	2 lane	Undivided	Arterial	1,000	C
	Golden State to Highland	4 lane	Undivided	Arterial	18,000	D
	Highland to McCall	4 lane	Undivided	Arterial	14,000	C
	McCall to Bethel	4 lane	Undivided	Arterial	12,000	C
Manning	Fowler to SH 99	2 lane	Undivided	Arterial	14,600	F
	SH 99 to Leonard	4 lane	Divided	Expressway	22,000	B
	Leonard to McCall	4 lane	Divided	Expressway	15,500	B
	McCall to Bethel	4 lane	Divided	Expressway	13,800	B
Fowler	Rose to Floral	2 lane	Undivided	Arterial	6,500	C
	Floral to Dinuba	2 lane	Undivided	Arterial	7,600	C
	Dinuba to Manning	2 lane	Undivided	Arterial	7,500	C
Temperance	Rose to Floral	2 lane	Undivided	Arterial	1,000	C
	Huntsman to Dinuba	2 lane	Undivided	Arterial	1,000	C
	Dinuba to Springfield	2 lane	Undivided	Arterial	1,000	C
De Wolf	Mountain View to Nebraska	2 lane	Undivided	Arterial	1,000	C
	Nebraska to Floral	2 lane	Undivided	Arterial	1,000	C
	Floral to SH 99	2 lane	Undivided	Arterial	1,000	C
	SH 99 to Manning	2 lane	Undivided	Arterial	1,000	C

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Circulation Element

City of Selma CIRCULATION ELEMENT Future Conditions With Future Capacity				Transportation Planning Group December 1994		
Street	Segment	Future Facility	Geometrics Median	Facility Type	Future Volume	Level of Service
Highland (SH 43)	Mountain View to Nebraska	2 lane	Undivided W/Lefts	Maj. Arterial	14,700	F
	Nebraska to SH 99	4 lane	Divided	Maj. Arterial	19,700	D
	SH 99 to Golden State	4 lane	Undivided	Arterial	8,200	C
	Golden State to Manning	4 lane	Undivided	Arterial	6,800	C
McCall	Mountain View to Nebraska	4 lane	Undivided	Arterial	5,300	C
	Nebraska to Golden State	4 lane	Undivided	Arterial	5,700	C
	Second to Floral	2 lane	Undivided W/Lefts	Arterial	13,400	E
	Floral to Dinuba	4 lane	Undivided W/Lefts	Arterial	23,600	D
	Dinuba to Manning	4 lane	Undivided	Arterial	12,700	C
Del Rey	Saginaw to Floral	2 lane	Undivided	Arterial	1,000	C
	Floral to Dinuba	2 lane	Undivided	Arterial	1,000	C
	Dinuba to Manning	2 lane	Undivided	Arterial	1,000	C
Bethel	Mountain View to Nebraska	2 lane	Undivided	Arterial	3,200	C
	Nebraska to Floral	2 lane	Undivided	Arterial	3,300	C
	Floral to Dinuba	2 lane	Undivided	Arterial	4,300	C
	Dinuba to Manning	2 lane	Undivided	Arterial	2,900	C
Highway 99	Mountain View to Second	6 lane	Divided	Freeway	69,900	C
	Second to SH 43	6 lane	Divided	Freeway	72,500	C
	SH 43 to Manning	6 lane	Divided	Freeway	72,100	C
Golden State/Whitson	Mountain View to Nebraska	4 lane	Divided	Expressway	7,300	B
	Nebraska to Floral	4 lane	Divided	Arterial	15,700	C
	Floral to Dinuba	4 lane	Divided	Expressway	11,900	B
	Dinuba to Manning	4 lane	Divided	Expressway	11,500	B
Second	Nebraska to Highway 99	4 lane	Undivided	Arterial	12,400	C
	Highway 99 to McCall	2 lane	Undivided W/Lefts	Arterial	21,200	F

Note: future volumes in italics represent numbers interpreted by TPG



FUTURE LEVEL OF SERVICE

City of Selma General Plan

CITY STREETS AND STATE HIGHWAYS

This section of the Circulation Element identifies the corridors and facilities that are to be designated as freeways, arterials and collectors within Selma's urban influence area. The Element identifies both facilities within the existing City limits and in a surrounding area beyond current development.

Dealing as it does with both land that is currently urbanized as well as land that is not currently developed, this Circulation Element serves different purposes in these two broad areas. Within the existing urbanized area, the Circulation Element identifies classifications and standards for streets already in existence. In many cases, the streets are already developed to these standards. In other cases, public works improvement projects will be needed at some time in the future to satisfy traffic demands on streets which are adequate for today's needs, but will prove to be inadequate for future traffic.

The purpose of identifying arterials and collectors in the as-yet undeveloped area is somewhat different. In presenting this Circulation Element, it is the City's intention to state clearly that the Element does not constitute a determination to expand its urban boundaries in a particular direction; that is the function of the Land Use Element. However, in the lifetime of this element, it is possible, in fact likely, that land use may evolve in a different way than can currently be visualized. The purpose of designating arterials and collectors in the undeveloped area is to lay the foundation and the principles for a circulation plan that will serve the land use if and whenever a decision to develop occurs. The Circulation Element in the undeveloped area is intended to let both the future developers of the land and the present and future residents of the City understand the parameters of the community's circulation as it will exist in the future.

The proposed street classification for Selma is intended to divide its traffic facilities into 5 categories to provide a balanced street system with adequate capacity for the land uses planned in the community.

Freeways

Freeways are intended exclusively for movement of high volumes of inter-city, regional, and longer local trips at high speeds. One freeway is proposed for inclusion in the Selma Circulation Element. SH 99 will continue to be the north-south link to the State's highway and freeway system.

Expressways

Expressways are intended to provide a high level of mobility with more frequent access to arterials and freeway systems but no direct land access. Expressways are typically designed with 4 lanes to provide for higher traffic volumes, at higher speeds and longer travel

City of Selma General Plan 1997 Update
Circulation Element

distances. Manning Avenue, Golden State Boulevard and a portion of Mountain View Avenue east of Golden State will remain expressways in the future circulation system. There are no additional expressways proposed for the future circulation system.

Major Arterials

Major Arterials are intended to provide a high level of capacity in selected high volume corridors, connect to the freeway system and collector streets and access major travel generators. Major Arterials are typically designed with 6 lanes for through traffic, a parking/transit/right turn lane, and a median with dual left turn lanes at intersections. Highland Avenue (SH 43) and Whitson Avenue are the only major arterials that exists in the Selma area. No additional major arterials are proposed for the future circulation system.

Arterials

Arterials are intended to provide the majority of the City's traffic carrying capacity, connect the freeway system and collector streets and access major travel generators. Arterials are typically designed with 4 lanes for through traffic, two parking/transit/right turn lanes, and a median with single left turn lane at intersections. As shown on the Circulation Element map, the following streets are proposed to be arterial streets within Selma's urban area:

East-West Arterials

Mountain View (DeWolf to SH 99)
Nebraska
Rose (McCall to Bethel)
Floral
Dinuba
Manning (Fowler to SH 99)
Second

North-South Arterials

Fowler
Temperance
DeWolf
Highland (Floral to Manning)
McCall
Del Rey
Bethel

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Circulation Element

Collectors

Collectors are intended to provide connectivity between local streets and the arterial street system as well as access to adjacent land uses. Collectors are typically designed with four lanes for through traffic, two parking/transit lanes, and/or a median for left turn access. The following streets are proposed to be collectors within Selma's urban are:

East-West Collectors

Saginaw
Rose (Fowler to SH 99)
Nelson
Springfield

North-South Collectors

Armstrong
Locan
Leonard
Thompson
Dockery
Indianola

Local Streets

Local streets are exclusively intended to provide access to adjacent land uses. Local streets are typically designed with two through lanes with parking on both sides. All other streets are deemed to be local streets.

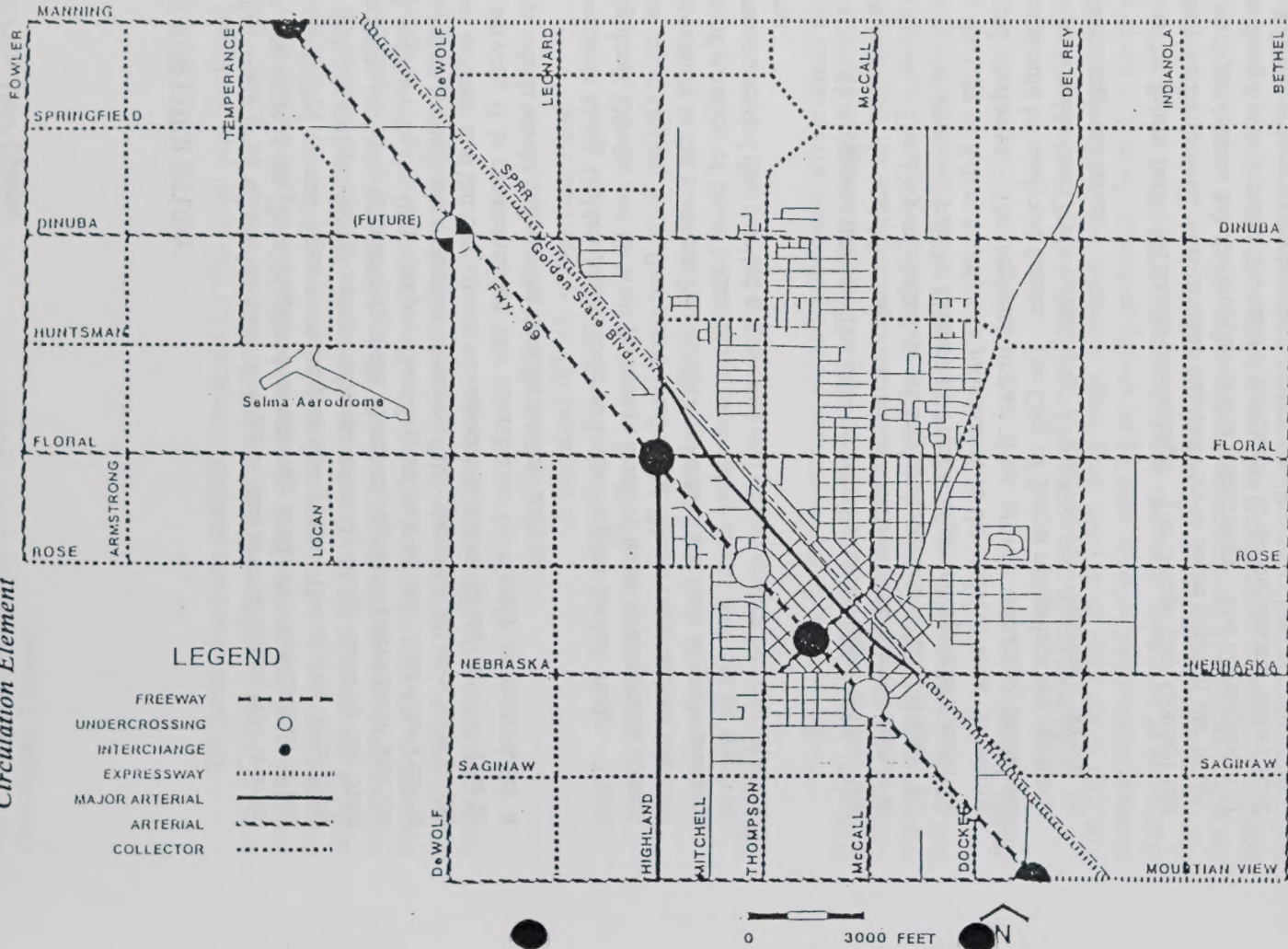
The map on the following page delineates the proposed future roadway designations for Selma.

City of Selma General Plan 1997 Update
Circulation Element

PROJECTS LIST

In order for the street and highway system to develop as outlined in the future system map and to maintain the desired levels of service, the following street improvement projects are proposed.

<u>Street</u>	<u>Limits</u>	<u>Facility</u>
1. Mountain View	McCall - SH 99	4 lane undivided arterial
2. Saginaw	Highland - Indianola	2 lane collector
3. Nebraska	Highland - Second	4 lane undivided arterial
4. Nebraska	Golden State - Indianola	4 lane undivided arterial
5. Rose	Highland - Thompson	2 lane collector
6. Rose	McCall - Indianola	4 lane undivided arterial
7. Floral	Leonard - McCall	4 lane divided arterial
8. Floral	McCall - Indianola	4 lane undivided arterial
10. Nelson	McCall - Indianola	2 lane collector
11. Dinuba	SH 99 - Indianola	4 lane undivided arterial
13. Springfield	Leonard - Indianola	2 lane collector
14. DeWolf	SH 99 - Manning	4 lane undivided arterial
15. Leonard	Dinuba - Manning	2 lane collector
16. Highland	Mountain View - Nebraska	4 lane divided arterial
17. Highland	Floral - Manning	4 lane undivided arterial
18. Thompson	Mountain View - Manning	2 lane collector
19. McCall	Mountain View - Whitson	4 lane undivided arterial
20. McCall	Second - Manning	4 lane undivided arterial
21. Dockery	Mountain View - Saginaw	2 lane collector
22. Dockery	Nebraska - Floral	2 lane collector
23. Dockery	Huntsman - Manning	2 lane collector
24. Del Rey	Saginaw - Springville	4 lane undivided arterial
25. Second	Nebraska - McCall	2 lane undivided arterial
26. Orange	Floral - Huntsman	2 lane collector
27. State Highway 99	Floral/Highland Interchange	interchange modification
28. Golden State Boulevard	Highland Avenue	intersection modification
29. Golden State Boulevard	Dinuba Avenue	intersection modification
30. Golden State Boulevard	DeWolf Avenue	intersection modification



FUTURE ROADWAY DESIGNATIONS

City of Selma General Plan

ISSUES REQUIRING FURTHER STUDY

The results of the future level of service analysis suggest that several issues will warrant further evaluation. The first issue is the Floral/Highland interchange at SH 99. Evaluations of this interchange have been conducted several times over the past few years. The results from these studies raised concern with the undercrossings. Improvements currently being made by the State Department of Transportation include signalization of the Floral at Highland intersection and the diversion of eastbound vehicles to the loop ramp. The City, as part of the Land Use Plan is addressing the capacity issues through the reduction of some of the planned land uses west of the freeway. Future volumes indicate that the City streets will operate at a level of service "D". Due to the projected level of service, it is recommended this interchange be closely monitored for a change in level of service which would indicate the need for further analysis.

The three intersections along Golden State Boulevard also require further study. These intersections include Highland, Dinuba and DeWolf Avenues. Each of these intersections consist of two narrow lanes that cross Golden State Boulevard at an angle. These intersections are also affected by their close proximity to the Southern Pacific Railroad tracks and their at-grade crossing of this mainline. The configuration of these intersections raise safety issues that can be resolved through redesign. It is recommended that detailed engineering and design studies be conducted for each of these intersections.

The third issue is one of a regional nature. The City of Selma acknowledges the fact that State Highway 99, State Highway 43 and Manning Avenue each will require improvements to accommodate future volumes. The City of Selma is willing to cooperate with Caltrans, the Council of Fresno County Government and the County of Fresno in providing information for these studies. However, the City of Selma is only one jurisdiction in the regional area impacting these State Highways and roadways. The regional impact from growth occurring in all the neighboring communities should be analyzed further. The City of Selma recognizes the solutions for these improvements lie outside the City's jurisdiction. A multi-agency approach should be implemented to address these regional issues.

The fourth issue is the future DeWolf/Dinuba Interchange. The Selma City Council has expressed its desire to provide for growth, west of State Highway 99 at some point in the future. Growth in this area will be dependent on the construction of this interchange. The development of the DeWolf/Dinuba interchange will provide the access necessary to accommodate future land development. The City of Selma requests a Project Study Report for this project become a priority for Caltrans. In the past, Caltrans and the Federal Highway Administration planned interchanges at 2 mile increments in rural areas and 1 mile increments in urban areas. Originally, when the freeway was designed, this portion of the Selma area was rural and the 2-mile interchange separation applied. With the planned urbanization of this area, the application of the 1-mile spacing criteria is in order. The Project Study Report will provide the community, the City and Caltrans with the design, environmental and cost details required for the programming of this major capital facility.

The level of service analysis completed for this study was conducted at a street segment level of detail. Further refinement of this analysis would be greatly enhanced through the completion of intersection level of service calculations. Segment analysis is just one method of assessing the operational characteristics of a street system. The use of intersection level of service analysis can provide for the fine tuning of the street system and does in fact yield the detailed information necessary for design purposes. During the course of the preparation of this Circulation Element, a number of critical intersections have been identified. It is recommended that from time-to-time, or in conjunction with major development projects, consideration should be given to further analyses at the following intersections:

- 1) Highland (SH 43) at Floral*
- 2) Highland (SH 43) at Mountain View*
- 3) Second at McCall/Rose*
- 4 Floral at McCall*
- 5) McCall at Dinuba*
- 6 Dinuba at Golden State*

TRANSIT

As the community grows, demand for both public and private transit services will increase. Historical trends in Selma and other Valley communities suggest that this increase in transit demand will actually be higher than the increase in population. Coupled with the changing requirements brought about by development and air quality issues, demand for increased public and private transit service is expected over the period of this Circulation Element.

Public Transit

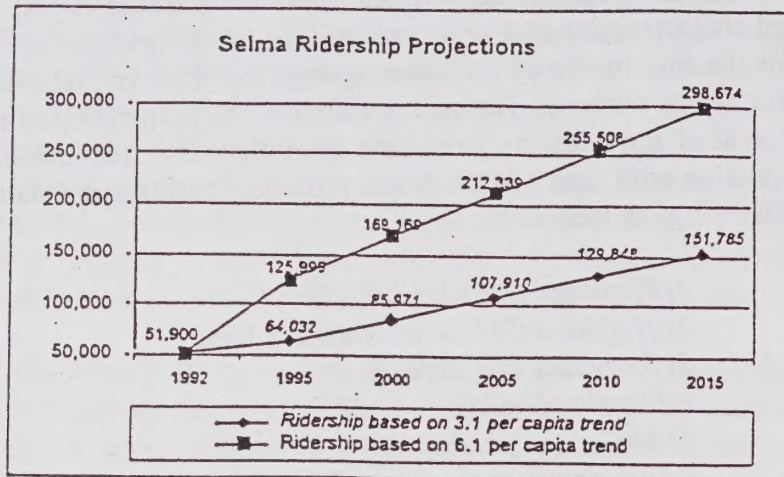
In the near future, two issues will significantly affect the demand for public transit service. The first is the need to develop long range strategies which allow growth and development to continue without adding to the existing air quality problems. Several of the proposed strategies for attainment of air quality standards target increased use of public transit. These strategies suggest significant increases in the use of transit for commute trips. The second issue affecting the demand for public transit will be congestion management. With the passage of Proposition 111 and its enabling legislation, requirements are now in place to maintain levels of service on critical regional and community roadways. Several congestion management strategies target transit as a method for maintaining levels of service. Both local and regional transit operations will be affected by congestion management.

In Fiscal Year 1996/97 FCRTA intends to begin operating a larger capacity electric trolley bus on the fixed route to further enhance the service.

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Circulation Element

It is anticipated that future ridership could increase between 151,700 to 299,000 by the year 2015. The figure below shows two possible trends in ridership. The low trend is based on the current per capita of 3.1, which represent the number of riders divided by the population. The second line represents a 6.1 per capita experienced by a city with the expected population Selma will have by the year 2015.



Private Transportation

The future of private transit operators is very difficult to predict. Intercity transit has struggled, and the future service levels will be influenced by market forces. Demand for service to and from Selma will continue to increase. With increasing demands brought about by air quality and congestion management, the private intercity operations in Fresno County could be expanded. Failure to meet this demand will shift the burden to the public sector.

Social Service Transportation

Over the last few years, funding for social service activities has continued to decrease. This decrease has caused agencies to cut transportation services and divert riders to the public transit system. It is anticipated that this trend will continue, thus increasing the number of social service riders on Selma's transit system.

AVIATION

Estimates predict the number of aircraft based at Selma, as well as annual operations, may double by 2015. The City has applied for FAA Funding for the preparation of an Airport Master Plan. The future master plan will evaluate the option of converting the existing private airport into a municipal facility. Discussion in the Master Plan will include further evaluation of the functional use of the facility as a municipal airport.

RAIL

Rail service in the future will continue to be influenced by factors outside of Selma. Both Southern Pacific and Santa Fe Railroads will continue to receive stiff competition from the

trucking industry. Absent significant Federal and State regulatory changes, the long term health of both railroads is questionable. This atmosphere will result in changing freight service. Continuing shifts from rail to trucks will further limit the level of service to the community and may ultimately lead to abandonment of one or more rail lines.

BICYCLE AND PEDESTRIAN

The community will see expanded bicycle and pedestrian facilities in the future. Bicycle activity is expected to increase over the life of this element. Pedestrian facilities are lacking in some parts of Selma. New construction must provide curb and gutter improvements along with the installation of sidewalks and curb cuts in many areas. With the designation of a planned bikeway system and the addition of new routes in the developing areas of the community, bicycle usage is expected to increase. As a result of congestion management requirements, commuter activity will be promoted. The development of a comprehensive bikeway plan might be considered as part of the long-range plan for the City to coincide with future growth patterns. This plan should focus on the development of bike lanes and/or bike paths around schools and parks, as well as considering the canal along Orange Avenue as a potential bike path meandering through the city. The provision of a basic bikeway system is delineated on the following page. This system illustrates bike routes along collector streets and off street bike paths along several major arterials.

TRUCK ROUTES

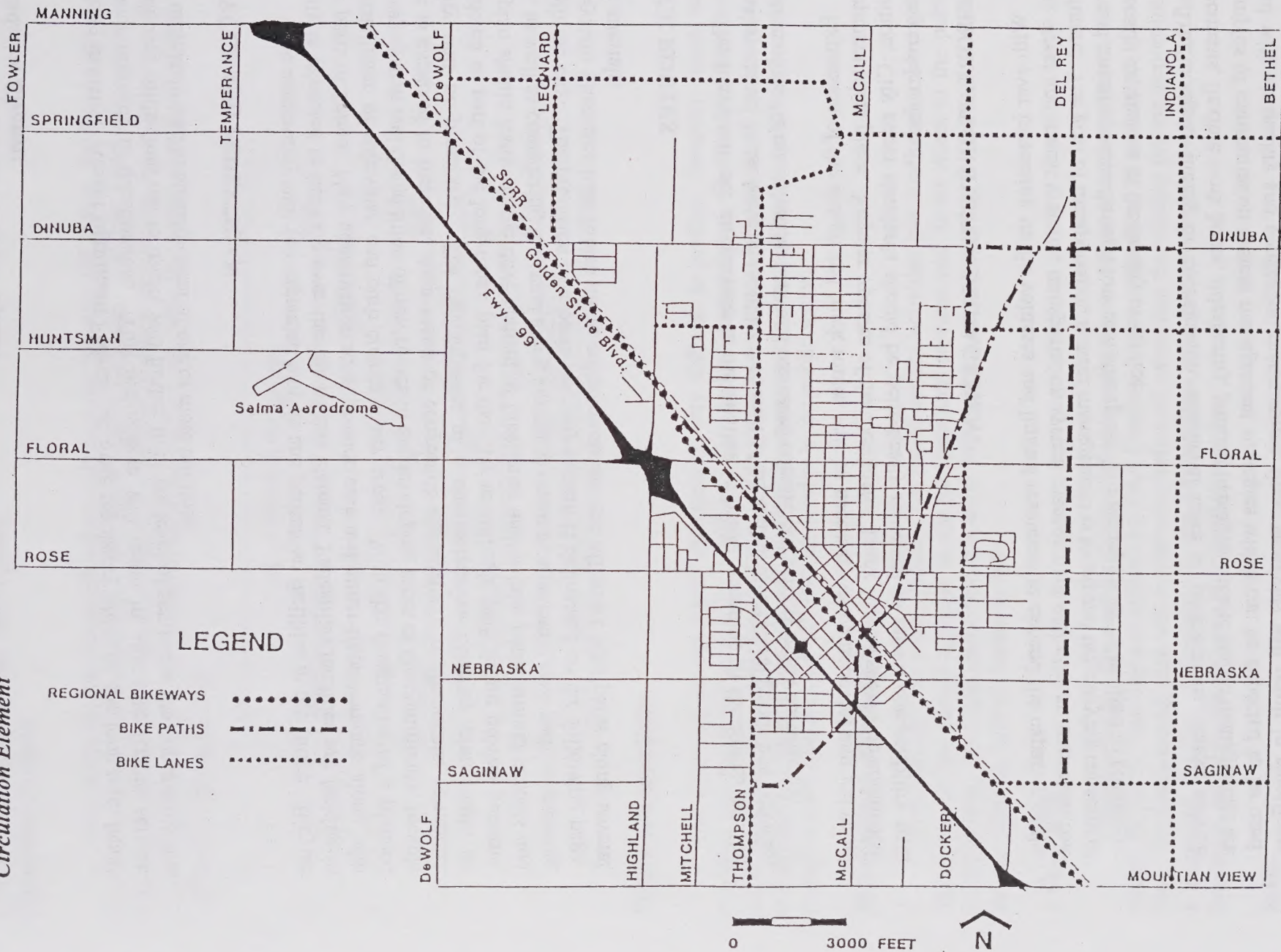
The future will see an increase in the number of trucks operating in the Selma area on regional systems. These increases will be the result of expanding agricultural goods and services, expansion of the Selma industrial base and increased commercial activity in the community.

Expansion of the designated truck routes will be necessary as commercial and industrial development takes place. Regular updates of the Designated Truck Routes should be completed. In addition, City street standards should be periodically reviewed to insure compatibility with changing truck standards.

TRANSPORTATION SYSTEM MANAGEMENT

With ever increasing traffic volumes and limited resources to expand the capacity of the existing street and transit systems, transportation system management will play an important role in the future. The goal of transportation system management is to expand the carrying capacity of streets and transit systems through low cost strategies. The strategies are to be used to prolong or avoid costly expansions of the facility or service.

Traffic signal timing or coordination, additional lanes at intersections, transit service enhancements, flexible work hours, ridesharing, parking management and traffic management are all examples of transportation system management strategies which can be expected to be used. Coupled with air quality and congestion management, these strategies will result in significant improvements to existing facilities and services prior to expansion.



PROPOSED BIKE PLAN

An emerging component of the transportation system is ridesharing. More commonly referred to as carpooling or vanpooling, "ridesharing" will become a strategy for addressing, air quality, congestion management and parking demand in the future. With the San Joaquin Valley designated as a "severe" area for air quality attainment, auto occupancy during the commute hours must be increased significantly by the year 1999. Ridesharing will play a critical role in meeting this requirement. In conjunction with air quality, congestion management plans will look to ridesharing to assist in limiting commuting impacts on critical road segments and intersections. Ridesharing can assist in increasing the passenger carrying capacity of a vehicle, therefore, reducing the number of single occupancy vehicles using a facility during peak hours.

Finally, as parking demand exceeds supply in specific areas or locations, ridesharing is one strategy that can be used to increase supply without building additional parking facilities.

GOODS MOVEMENT

The movement of goods will continue to be provided by truck, rail, aviation and pipeline. Agricultural products (both raw and processed) will continue to represent a predominant part of the volume of goods. Commercial development will result in expanded volumes of goods being shipped into the community.

The changing composition of the population of the United States is an important factor in the study of the history of the United States. The population of the United States has increased from about 2.5 million in 1790 to over 150 million in 1950. This increase has been the result of a number of factors, including immigration, natural increase, and the growth of the cities. The population of the United States has also become more diverse in terms of race and ethnicity. In 1790, the population was almost entirely white. By 1950, the population was made up of a variety of races and ethnicities, including white, black, and hispanic. This diversity has led to a more complex and varied culture in the United States.

The population of the United States has also become more concentrated in the cities. In 1790, only about 5% of the population lived in cities. By 1950, over 50% of the population lived in cities. This concentration in the cities has led to a number of problems, including overcrowding, pollution, and crime. It has also led to a loss of the rural way of life and a decline in the importance of agriculture.

THE POPULATION OF THE UNITED STATES

The population of the United States has increased from about 2.5 million in 1790 to over 150 million in 1950. This increase has been the result of a number of factors, including immigration, natural increase, and the growth of the cities. The population of the United States has also become more diverse in terms of race and ethnicity. In 1790, the population was almost entirely white. By 1950, the population was made up of a variety of races and ethnicities, including white, black, and hispanic. This diversity has led to a more complex and varied culture in the United States.



VI. FINANCIAL PLAN

This section of the Circulation Element will address the long term financial plan for implementing the planned street system improvements. Under California case law, municipalities must adopt circulation elements which are fully funded, or can be fully funded through actions controlled by the adopting agency. Therefore, the financial plan in this Circulation Element has been developed to provide a series of funding options for consideration during the draft review period.

METHODOLOGY

This chapter begins by establishing the estimated costs of the identified improvement projects. Following the project cost information, existing street revenues have been identified. The final task is the identification of optional funding sources for consideration by the community.

COST ESTIMATES

The future conditions analysis in the previous chapter identified a list of street improvement projects needed to facilitate the planned land use element and/or maintain the desired level of service on the community's streets. The purpose of this section is to provide an overview of the costs of each of the planned projects.

The cost estimates provided for the planned street projects are intended to be "order-of-magnitude" estimates. For the purposes of these estimates, costs have been based on typical costs. Typical sections have been defined from the city standards and costs have been defined from current local information on construction costs. Reference is made to recently completed City of Selma construction projects and the 1991 Expenditure Plan for Measure "C".

The following chart delineates the order-of-magnitude costs of the planned projects described in the previous chapter.

City Of Selma
ARTERIAL NEEDS STUDY
Street Widening

Street	From	To	Construction Cost	Right-of-Way Cost	Total
Mountain View	McCall	SR 99	\$596,160	\$353,280	\$ 949,440
Saginaw	Highland	Indianola	\$912,945	\$321,920	\$1,234,865
Nebraska	Highland	Second	\$348,090	\$271,680	\$ 619,770
Nebraska	Golden State	Dockery	\$176,610	\$111,360	\$ 287,970
Nebraska	Dockery	Indianola	\$1,024,345	\$497,820	\$1,522,165
Rose	Highland	Thompson	\$360,525	\$364,320	\$ 724,845
Rose	McCall	City Limits	\$289,680	\$195,840	\$ 485,520
Rose	City Limits	Indianola	\$628,505	\$358,080	\$ 986,585
Floral	Leonard	City Limits	\$371,633	\$298,800	\$ 670,433
Floral	City Limits	SR 99	\$244,470	\$222,720	\$ 467,190
Floral	SR 99	McCall	\$839,858	\$1,173,600	\$2,013,458
Floral	McCall	Dockery	\$307,758	\$143,920	\$ 451,678
Floral	Dockery	Indianola	\$1,007,510	\$497,280	\$1,504,790
Nelson	McCall	Dockery	\$159,250	\$0	\$ 159,250
Dinuba	SR 99	Thompson	\$1,334,800	\$1,249,600	\$2,584,400
Dinuba	Thompson	McCall	\$186,020	\$199,120	\$ 385,140
Dinuba	McCall	Indianola	\$1,428,118	\$432,880	\$1,860,998
Springfield	Leonard	Indianola	\$0	\$0	\$0
DeWolf	Mountain View	Springfield	\$870,188	\$436,800	\$1,306,988
Leonard	Dinuba	Manning	\$219,510	\$86,720	\$ 306,230
Highland	Mountain View	Nebraska	\$1,316,183	\$1,264,800	\$2,580,983
Highland	SR 99	Golden State	\$136,655	\$175,160	\$ 311,815
Highland	Golden State	Dinuba	\$645,325	\$547,360	\$1,192,685
Thompson	Mountain View	Valley View	\$644,760	\$254,720	\$ 899,480
Thompson	Valley View	Nebraska	\$159,900	\$83,200	\$ 243,100
Thompson	Nebraska	SR 99	\$424,865	\$350,240	\$ 775,105
Thompson	Floral	Huntsman	\$150,220	\$269,360	\$ 419,580
Thompson	Huntsman	Dinuba	\$255,110	\$378,720	\$ 633,830
McCall	Mountain View	Whitson	\$408,750	\$453,440	\$ 862,190
McCall	Second	Floral	\$441,040	\$307,840	\$ 748,880
McCall	Floral	Dinuba	\$1,019,180	\$293,440	\$1,312,620
McCall	Dinuba	Manning	\$877,885	\$541,840	\$1,419,725
Dockery	Nebraska	Floral	\$750,975	\$337,280	\$1,088,255
Del Rey	Floral	Dinuba	\$1,028,905	\$338,560	\$1,367,465
Second	Nebraska	McCall	\$192,410	\$65,040	\$ 257,450
Orange	Floral	Huntsman	\$157,760	\$174,080	\$ 331,840
State Route 99	Floral	Highland Interchange	\$186,760	\$0	\$ 186,760
TOTAL			\$20,102,658	\$13,050,820	\$33,153,478

EXISTING REVENUES

The City of Selma currently uses six funding sources to maintain and develop streets, as well as, provide public transit service. The existing funding sources are federal gas tax revenues, state gas tax revenues, transportation development act funds, local sales tax revenues, federal housing funds, general fund revenues, development impact fees and other grants.

Federal Gas Taxes

The Federal Intermodal Surface Transportation Efficiency Act (ISTEA) authorized the continuance of federal taxes on gasoline and diesel fuel. Revenue from the tax is deposited into the Federal Highway Trust Fund and distributed to the states, counties and cities through a number of categories and special programs. Federal gas tax revenues have historically returned to Selma through the federal aid-urban (FAU) and combined road program (CRP). These programs have provided funds for the maintenance or construction of streets. This fund has historically been used by the City for construction of street improvements such as widening existing streets or installation of traffic signals. Over the life of this Circulation Element, it is expected that the federal program will continue to return the same per capita rate as it does currently.

State Gas Taxes

The state gas tax provides a significant level of funding directly to the City of Selma for maintenance and construction of streets. These funds are being augmented by the 9¢ increase in the gas tax approved in 1990 with the passage of Proposition 111. The State of California provides state gas tax funding for the maintenance and improvement of State Highways 43 and 99. The State uses both federal and state gas tax revenues to develop capacity enhancing projects.

Transportation Development Act Funds

The City also receives funds from Transportation Development Act for street purposes. These funds, which are collected by the State of California from sales taxes generated within Selma, are returned to Selma for the development of both streets and public transit service. A provision in the Act provides that if a city is meeting all transit needs, then any remaining funds can be spent on street projects. Currently, Selma uses these funds for operation and capitalization of the Selma Transit. The City also uses funds for bicycle/pedestrian projects and some funds for street purposes.

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Circulation Element

Measure "C" Funds

Realizing the importance of maintaining a quality transportation system, and recognizing the inadequacy of traditional funding sources, the voters of Fresno County approved a 1/2 percent local sales tax with revenues designated for transportation improvement purposes. This tax is projected to raise approximately \$902 million during its 20 year life. Twenty-five percent of the proceeds (\$225 million) will be allocated directly to cities and the county for local transportation purposes. The balance (\$677 million) remains with the Fresno County Transportation Authority for highway capital improvements and are further split with no less than 30% (\$203 million) available for rural projects and the remainder (\$474 million) available for urban highways.

The initial expenditure plan for these funds was adopted in September 1988. The expenditure plan is regularly updated and is developed through a cooperative effort involving Fresno County and its cities, the Fresno County Transportation Authority, and Caltrans. It is organized into rural and urban components to match the original plan, and to reflect the division of highway funds. The list of candidate projects remained much the same as reflected in the 1988 Plan, with the addition of three local candidate projects nominated for the urban area. The total candidate list includes 16 urban state highway projects, plus 10 projects on local streets. There are 63 rural candidate projects.

The Measure "C" project in the Selma area is the Route 43 improvement. Route 43 will be widened to a 4 lane expressway from Nebraska Avenue to Freeway 99. The project is anticipated to be completed by 1998 with a total cost of \$10.70 million. Additional Measure "C" funds, identified for local projects, are also available to the City of Selma.

General Funds

The City of Selma has historically budgeted funds from the city's general fund for street maintenance. This funding source has provided the community the opportunity to use both the federal and state gas tax funds for other maintenance and capacity enhancing projects.

Signal Impact Fees

The City of Selma has adopted a comprehensive signal impact fee program for traffic signal improvements. These impact fees have been developed to address the long range needs in the existing and developing areas of the community. The signal impact fees assist in providing improvements for the planned roadway system.

FUNDING OPTIONS

Faced with the need to expand the street system to meet the needs associated with new development and to provide additional capacity on older streets, the community has several

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Circulation Element

options from which to develop a balanced funding program for the Selma Circulation Element. One option or combinations of these options can be used to develop the preferred funding program. The community must, however, be capable of implementation of the selected program. That is, within the context of the City's control of certain options, the community must select a course of action that over the life of the Element can be implemented. The following section describes the funding options available to the community.

Reduced Level of Service

Reduction in the adopted level of service is one alternative the City has to reduce the level of revenue needed to deliver the planned street improvements. Cost savings would be found by changing City policy to allow for a Level of Service of "E" as the minimum acceptable level of service. This policy change would reduce the number and magnitude of projects needed to maintain the adopted service level.

Increases in the State Gas Tax

The passage of Proposition 111 in June 1990 raised the State fuel tax from 9¢ to 18¢. These additional funds have been programmed into the existing revenue expected over the life of the Element. The possibility of an additional increase in the state gas tax beyond the 18¢ currently authorized is unknown at this time.

Increases in the Federal Gas Tax

The federal transportation program was extended in 1991 and will be reviewed again in 1996. It is expected that over the life of this element, federal revenues will be continued at the same per capita rate that is currently in place. These funds can be programmed for both state highway improvements and local street improvements for maintenance and capacity enhancement. The expansion of federal revenues over the next several years will be the subject of extended debate in the upcoming Congress. Options under consideration include expansion of the funding available to accelerate program allocations.

Development Impact Fees

The existing signal impact fee structure could be expanded into a comprehensive development impact fee program. The expansion of the fee program could make a significant commitment to funding and building the necessary street system to accommodate future population and employment growth. The development impact fee program could eliminate several barriers to development, including requirements of mitigation for congestion management, limits on development due to inadequate capacity in the existing or planned street system and a commitment to maintaining the community's interface with the regional roadway system. The annual review and updating of the fee structure would provide the

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Circulation Element

community with an ongoing mechanism to insure that projects are developed and constructed in a timely manner.

Development Sponsored Improvements

Another alternative for funding is to require developers to assist in the funding for improvements to the transportation network. Currently, developers are required to install curb, gutters, sidewalks, and half of a local street. This alternative would increase the role of development in the construction of collectors and arterials. Adjacent development would be asked to complete larger portions of the new streets and thereby reduce the public cost of new construction. Policy options include requiring the adjacent development to construct half of the collectors and the arterials and to pay for all oversizing necessary for development, or to require development to "fully" mitigate impacts to adjacent and surrounding streets as part of development.

Extension of the Measure "C" Sales Tax

The passage of Measure "C" in 1987 was a significant commitment by the voters to construct needed highway and street improvements. The current measure expires in 2007. The extension of this local sales tax dedicated to transportation is a key component for any funding plan.

County Wide Gas Tax

Similar to the County sales tax option state law allows for the county to impose a gasoline tax for the purposes of funding transportation projects. A countywide gas tax would be collected by the State through the current collection system and returned under the current gas tax distribution method. A countywide gas tax has never been implemented in California. This is primarily because the revenue lost to adjacent counties offsets the revenue gains from the increase in the tax.

City General Funds

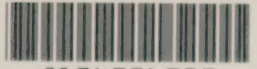
City general funds are another option to generate additional revenue or street improvements. Historically, cities have received significant general fund revenues from Vehicle In-Lieu Fees (registration fees) collected by the State and returned to the community. In recent years the State Legislature has used these funds to assist in balancing the State's budget. The long-term stability of these funds is therefore questionable. The City of Selma has historically contributed to the maintenance of the existing street system with annual budget expenditures from the general fund. This element assumes that this commitment will continue and will be used exclusively for continuing maintenance of the street system.

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Assessment Districts

Another possible method of financing future street improvements would be the creation of special assessment district(s) within the community. A special assessment is a levy placed on property to finance improvements that benefit that property. These assessments are paid by the property owner at the time the annual property taxes are paid. The district can either issue bonds to pay for the proposed street improvements or collect funds and build needed projects on a "pay-as-you-go" basis. Several of the proposed street projects would be candidates for this type of specialized funding.

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